Utility Manual
(CE 5.0)

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History of Records

Version	Contents Updated	Date Released	Page No.	Chapter
V1.0	**Initial Release**	**22nd March 2007**	**NA**	**NA**
V2.0	**Add (For Summit RF Card)**	**11 July 2007**	**50**	**10.2**

Chapter 1 Introduction

This manual describes all the applications, tools and settings which made by Unitech's software team, for WinCE 5.0 system. You may refer to this manual for the utilities on all Unitech's products which use WinCE 5.0 system.

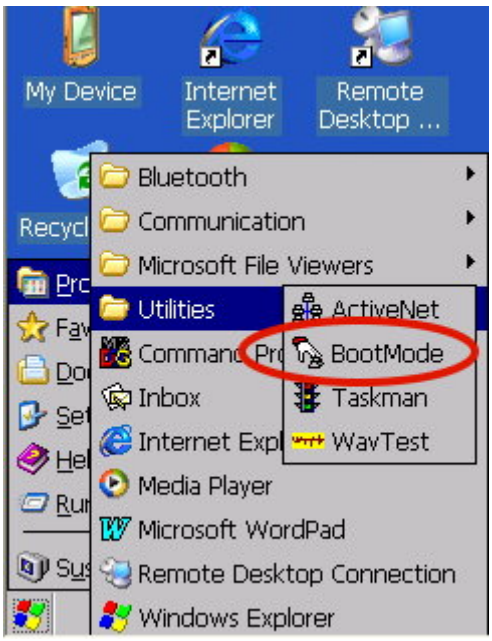
Chapter 2 Bootmode

This utility allows the user to perform the warm boot and cold boot function.

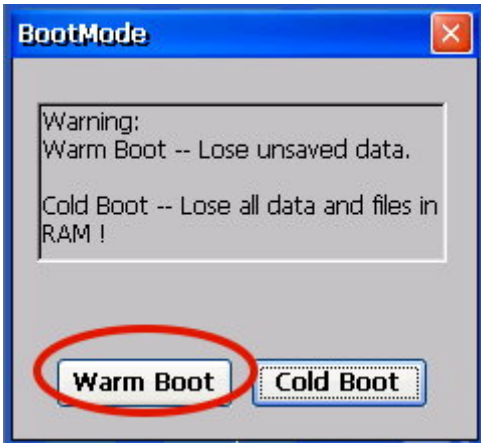
Path: Start Menu/Programs/Utilities/BootMode

Warm Boot

1. Select **Start Menu → Programs → Utilities → Bootmode**



2. Tap **Warm Boot** .The system will be warm started.

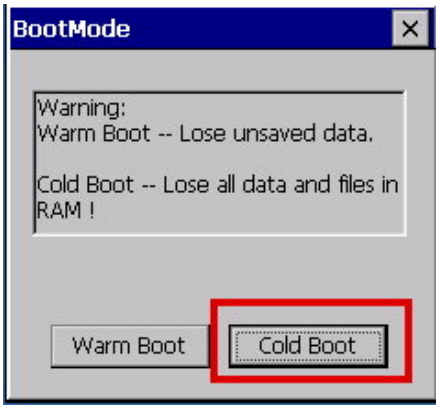


Cold Boot

Caution: Backup your data first!

1. Select **Start Menu → Programs → Utilities → Bootmode**

2. Tap **Cold Boot**

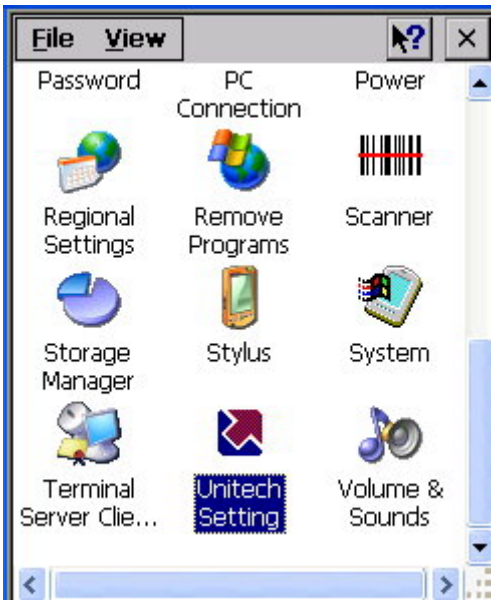


3. All data to be lost! Proceed anyway? Tap **Yes**

4. The terminal will be cold started.

Chapter 3 Unitech Setting

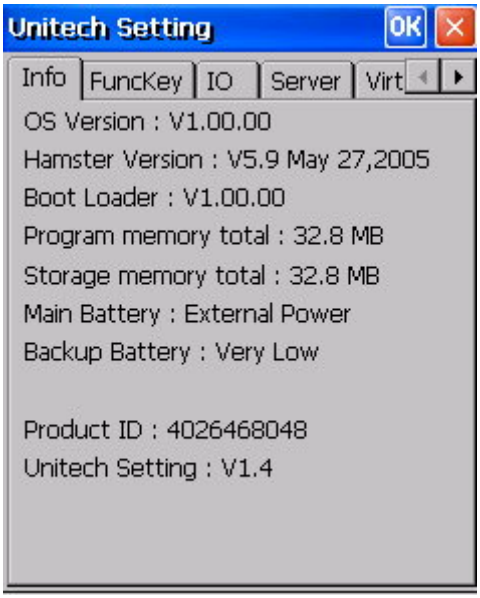
Path: Settings/Control Panel/Unitech Setting



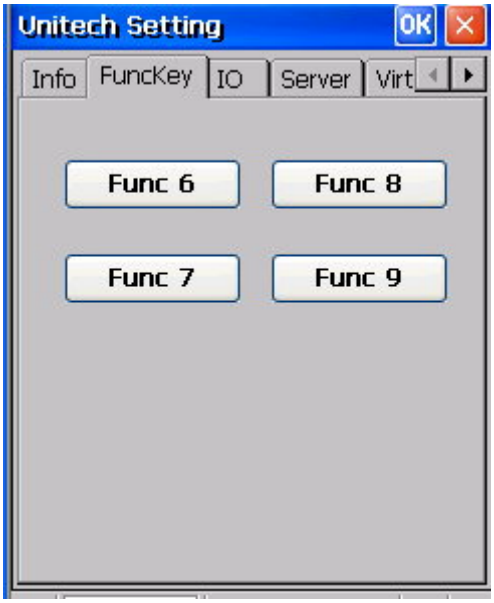
3.1 Info

1. Tap tab.

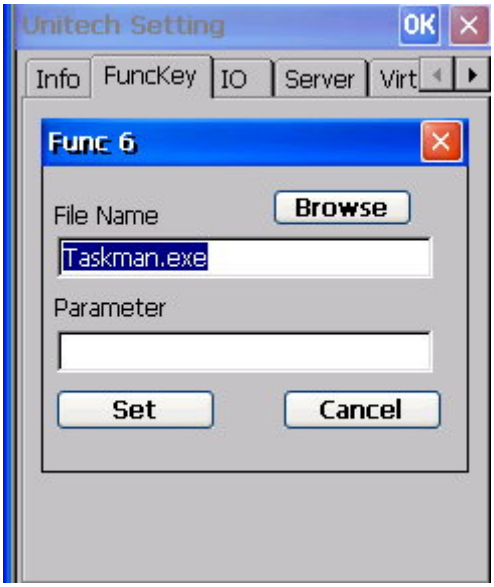
It shows the OS version, memory space, battery power and product ID.



3.2 FuncKey



1. Tap **FuncKey** tab. Four hot keys can be defined by the users.
2. Tap **Func 6**
3. Tap **Browse** . Select the application you want to assign to F6. Tap **Set**



4. Tap to exit.

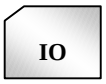
5. Exit to Funckey windows. Tap OK

6. Func6 will call the application that the users specified.

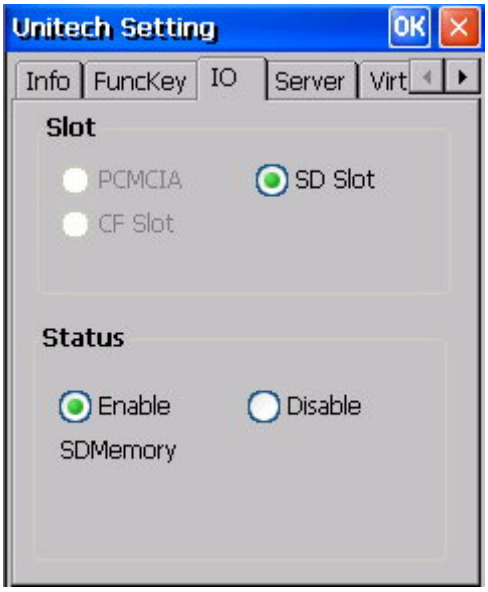
7. You can repeat the steps for Func7,Func8, Func9.

By default:
Func6 – Task Manager
Func7 – Scanner Settings
Func8 – Power Properties
Func9 – Unitech Settings

3.3 IO

1. Tap 

tab.



2. Under status, select **“Enable**” or “**Disable**”.

3. When enable, the I/O card is always accessible; when disabled, the I/O card is not accessible.

Note:

For PA600 and HT660, only SD slot is available

For PA962/PA963/PA966/PA967/PA982, PCMCIA and CF slot are available

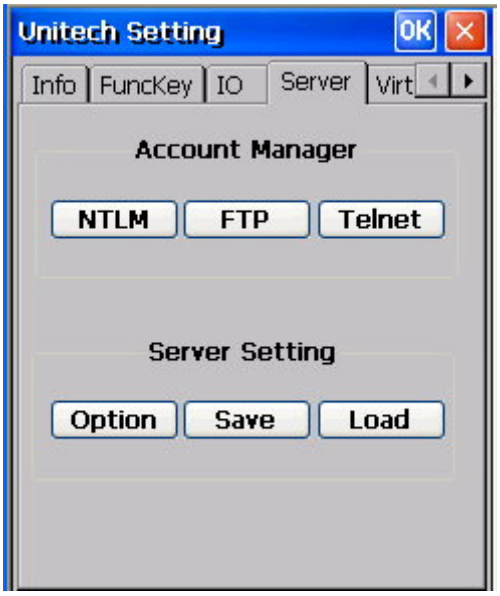
For RH767, only PCMCIA slot is available

3.4 Server

Server Manager is a tool for the user to manager the NTLM (Windows NT LAN Manager) users, FTP users and telnet users.

Tab

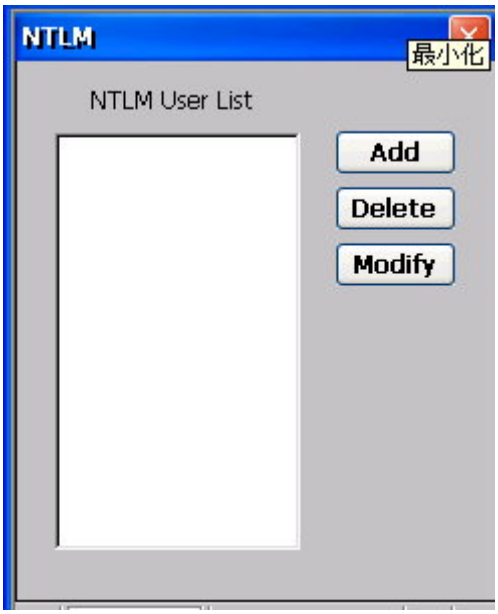
tab.



Account Manager

NTLM

1. Tap **NTLM** .Tap **Add** to add a new user.



2. Key in the user name and password. Tap OK Add Success. Tap OK

3. To modify a user's password, select the user and tap **Modify**

4. Enter the new password and confirm password. Tap OK . Change password success. Tap OK

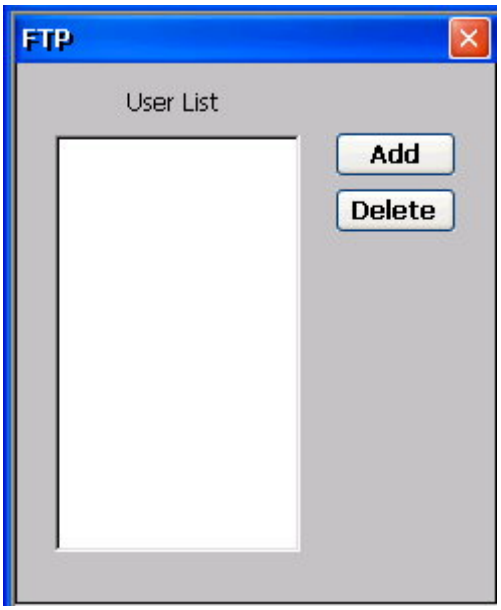
5. To delete a user, select the user you want to delete, tap **Delete**

6. Tap **Export**. The user can backup SSID, WEP, all server users and this server's settings to \Flash Storage.

7. Tap **Import** to restore all the settings.

FTP

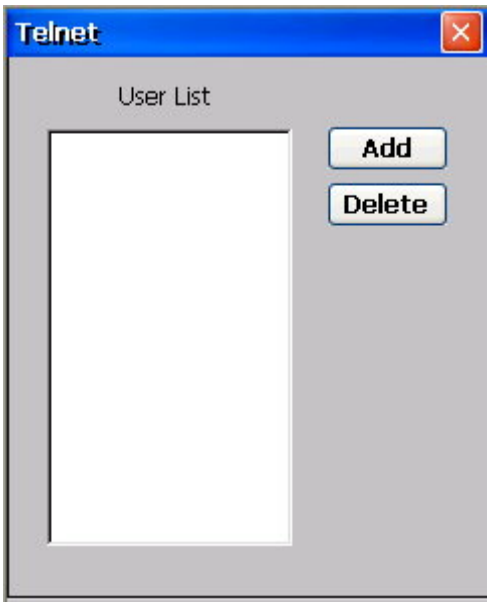
1. Tap **FTP** .Tap **Add** to add a ftp user.



2. Select the user and tap **Add**
3. Do you want to add user “X” to FTP server ? Tap **Yes**
4. To delete ftp user, select the user and tap **Delete**
5. Do you want to delete the user X? Tap **Yes**

Telnet

1. Tap **Telnet** .Tap **Add** to add a new user.
2. Tap **Add** .Add the telnet user from NTLM. Select the user and tap **Add**

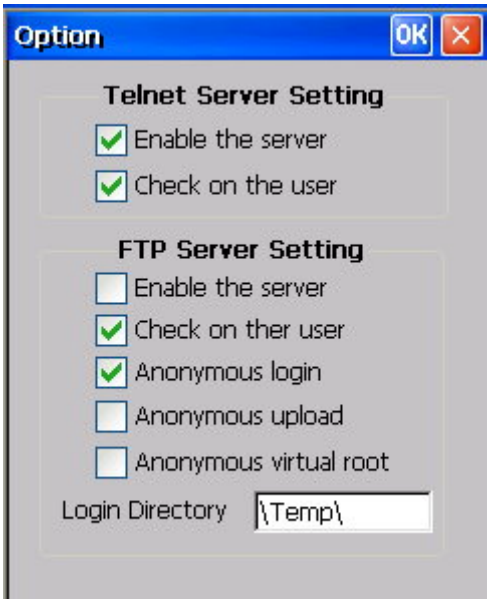


3. Do you want to add user X to the telnet server? Tap **Yes**
4. To delete the telnet user, select the user and tap **Delete**
5. Do you want to delete the user X? Tap **Yes**

Server Settings

Option

1. Tap **Option**



2. For telnet server setting, enable/disable server.

3. For FTP server setting, enable/disable server and define anonymous login.

Save

1. Tap **Save** to save the server settings.

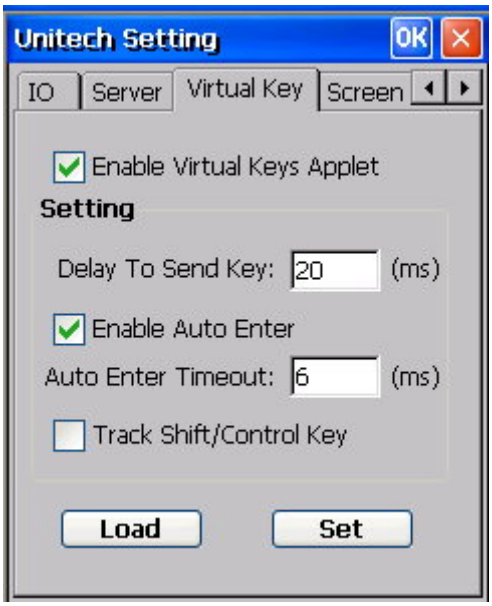
Load

1. Tap **Load** to load the saved server settings.

3.5 Virtual Key

This tool allows you to enable/disable the alpha keys on the terminal keypad , set auto enter and inter character delay.

1. Tap **Virtual Key** tab.



2. Check "**Enable Virtual Keys Applet**". Tap **Set**

3. Execute pocket word and test alpha keys. Press "alpha" key and press numeric key. The characters output as alpha keys.

4. Uncheck "**Enable Virtual Keys Applet**". Tap **Set**

5. Press "alpha" key and press numeric key. The characters output as non-alpha keys.

6. In "**Virtual keys**", enter the time delay for "**Delay To Send Key**". Characters will be output in the speed as defined.

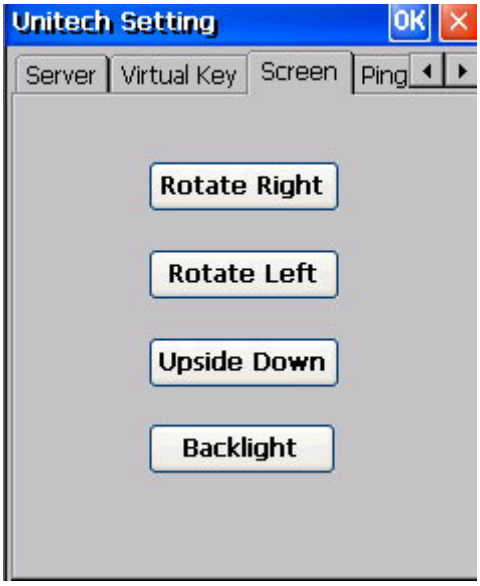
7. In "**Virtual keys**", Check "**Enable Auto Enter**".

8. Define a value for "**Auto Enter Timeout**". Tap **Set**

9. In pocket word, turn to alpha mode. Press and hold a key. The alpha characters are highlighted in a loop. Release the key. The character which was focused on will be printed after a period of time, according to the auto enter timeout defined.

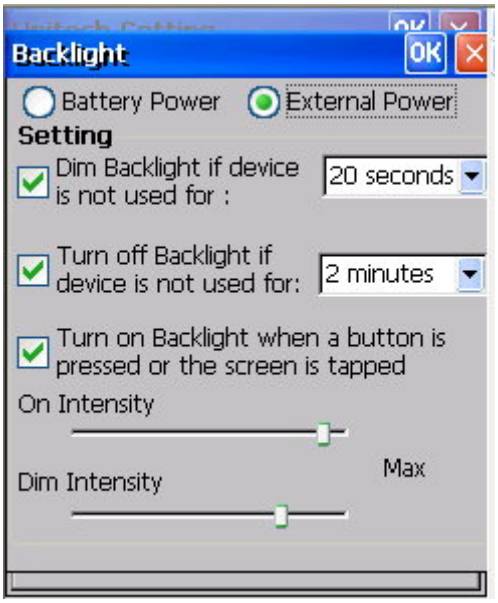
10. Tap **Load** to load the previous setting.

3.6 Screen



1. Tap **Rotate Right** . Screen rotate to the right.
2. Tap **Rotate Left** .Screen rotate to the left.
3. Tap **Upside Down** .Screen rotate upside down.
4. Tap **Backlight**

    4.1 To set the backlight auto off for battery power, select "**Battery Power**". To set the backlight auto off for external power operation, select "**External Power**".



4.2. Check "**Dim backlight if device is not used for**", select the time from the pull down menu. The light of the screen backlight will dim after the idle time specified. If you do not want to set backlight dim, please uncheck this option.

4.3 Check "**Turn off backlight if device is not used for**", select the time from the pull down menu. The backlight will turned off automatically after the idle time specified. If you do not want to set backlight auto off, please uncheck this option.

4.4.Check "**Turn on Backlight when a button is pressed or screen is tapped.**" User can tap on the screen or press any keypad to turn on the backlight.

4.5 Drag the bar of "**On Intensity**" to define how bright you want the backlight.

4.6 Drag the bar of "**Dim Intensity**" to define the brightness of dim.

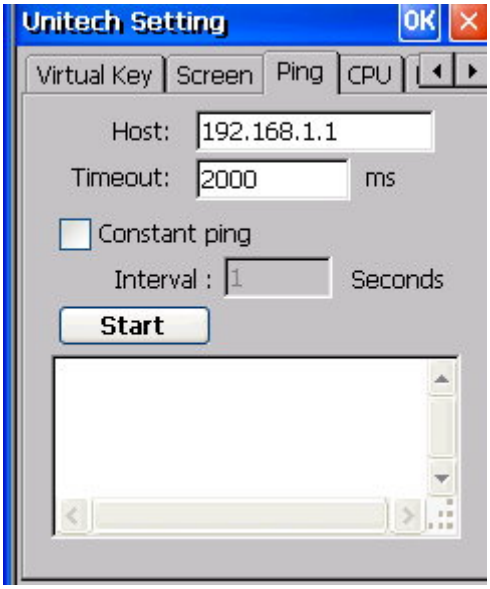
3.7 Ping

This tool allows you to ping to other devices in LAN network while your terminal is connected to the network.

1. Tap

tab.

2. On the **Host** field, enter the IP address of the device you want to ping to.



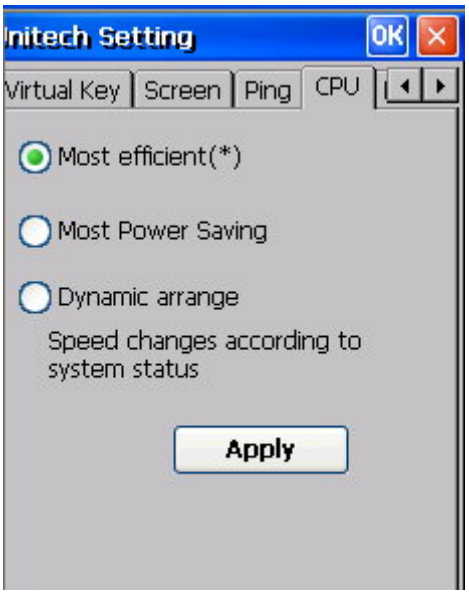
3. Check "**Constant Ping**" so that your terminal will continuously ping to the remote device.

4. Tap

5. The terminal will search for the remote computer with the IP address which you entered. If not found, you will see "Request Time Out". If the remote computer is found, you will see "Host Responding".

3.8 CPU

This allows you to select the speed of the CPU according to your requirement of the performance.



1. Tap CPU tab.

2. Select "**Most Efficient**". This will speed up the CPU but very power consuming.

3. Select "**Most Power Saving**". This will save the battery power but the efficiency is lower.

4. Select "**Dynamic arrange"**. This will let the speed changes according to the system status.

5. For every selection, please tap **Apply** button to take the effect.

3.9 Reg Backup

This tool allows you to save the current registry or reset to factory default.

1. Tap **Reg Backup** tab

2. Tap **Save** to save the current registry settings.

3. Tap **Restore** to reset registry to the factory default. The Terminal will be warm started.(Note that “Restore” button is grey out if the registry setting was not saved before)

Chapter 4 WavTest

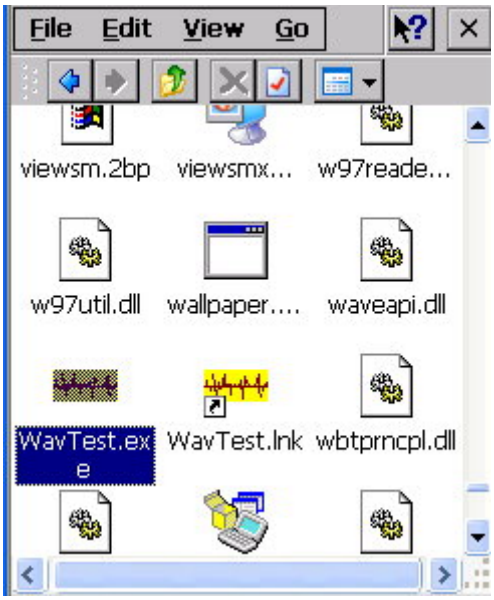
This tool is to test the audio recording and display.

Path: /Start/Programs/Utilities/WavTest

or

/My Device/Windows/WavTest

1. Double tap "**WavTest**".



2. Select the frequency. Change to "**Stereo**".
3. Tap **Rec** Talk near to the microphone port of the terminal.

4. Tap **Stop** to stop recording.

5. Tap **Play** to play the audio you just recorded.

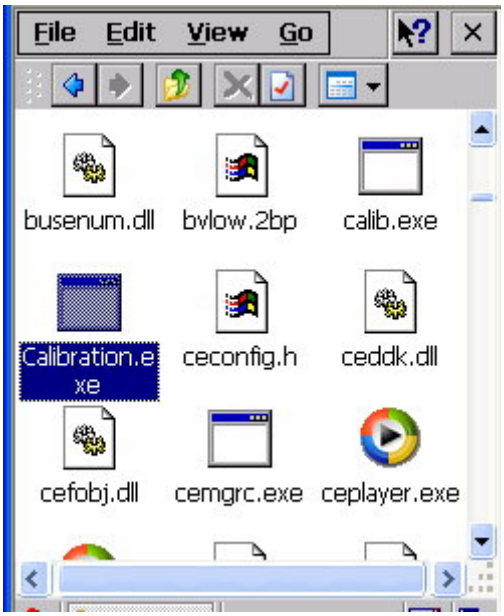
6. Tap **Save** to save this audio as a wav file.

Chapter 5 Calibration

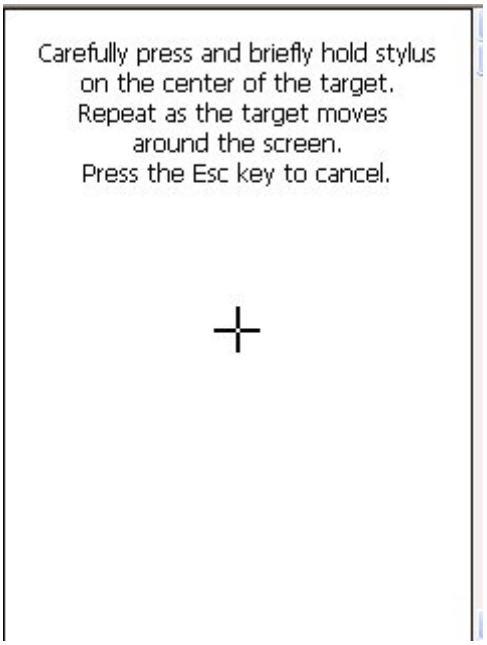
This tool allows you to do calibration while the original screen calibration is no longer accurate.

Path:/My Device/Windows/Calibration.exe

1. Double tap "**Calibration**".



2. Use the stylus to touch the "+" (Center, Top left, Bottom left, Bottom right, Top right), then press "**Enter**" key.


Carefully press and briefly hold stylus
on the center of the target.
Repeat as the target moves
around the screen.
Press the Esc key to cancel.

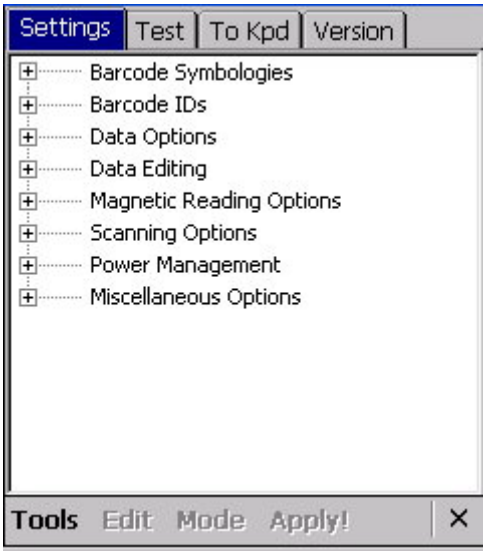
Chapter 6 Scanner Settings

This tool allows you to make some settings on scanner such as barcode symbologies, barcode IDs, data options, data editing, scanning options in order to change the scanner behavior. Besides, it allows a scanning test. Every time change the setting, must click "Apply" button to get the effect.

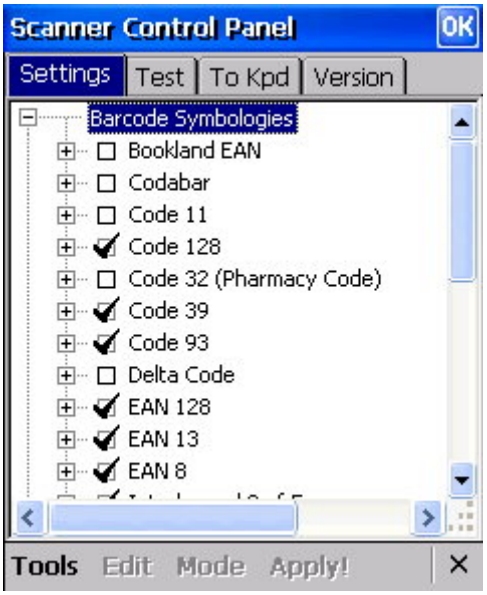
Path: Control Panel/Scanner Settings.exe

1. Double tap "**Scanner**".

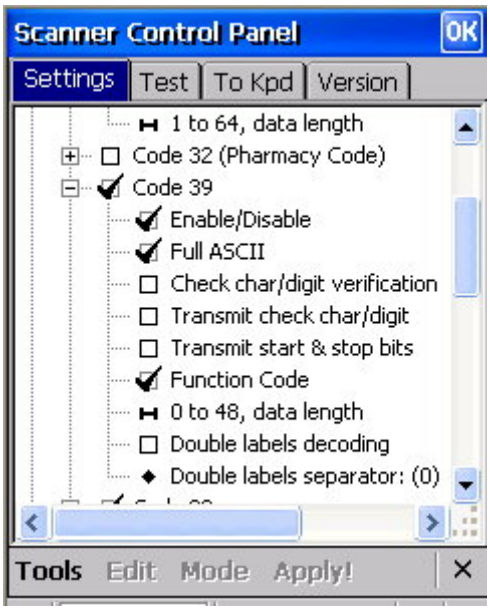
2. Under **Settings** tab, tap "**Barcode Symbologies**".



3. Tap "+" in front of "**Barcode Symbologies**". You will see a list of available barcode type.

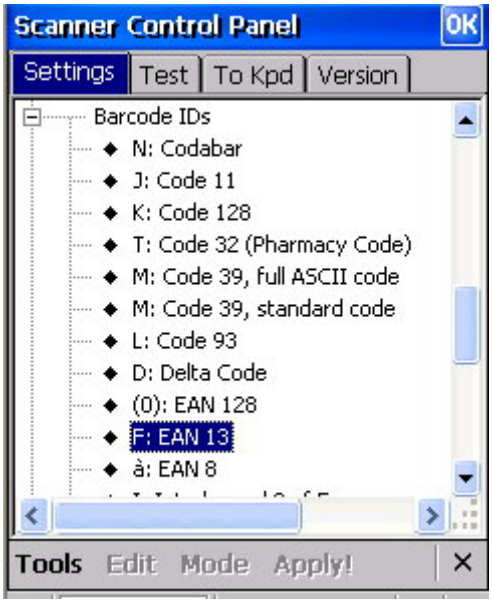


4. Tap "+" to expand the tree. Under each barcode type, there are more options such as enable/disable, check digit verification, transmit check digit etc. Tick the options that you want to apply on that barcode. Then, tap "**Apply!**" button.

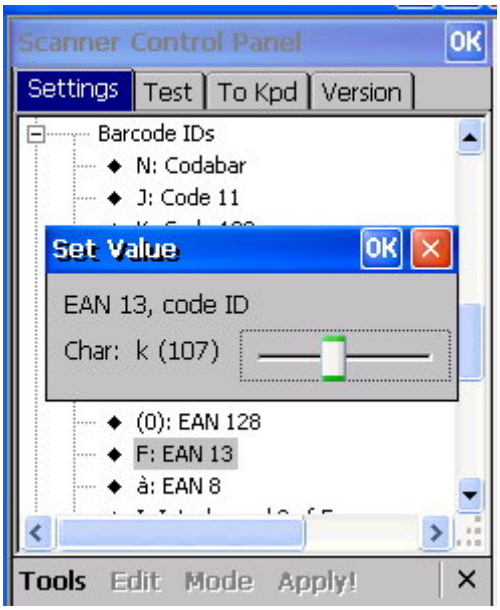


5. The scanner decoder will work as what you have specified.

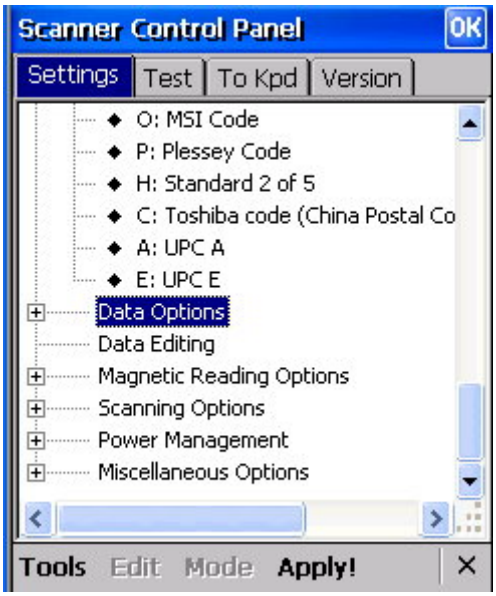
6. Tap "**Barcode IDs**". A list of barcode type is shown with their IDs in front.



7. Double tap the barcode type which you want to change ID. (Example: F: EAN13). Change to other ID by scrolling the button. Tap OK

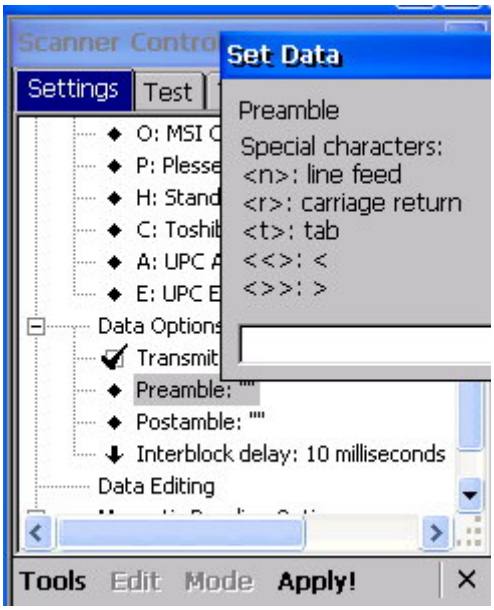


8. Tap "**Data Options**".

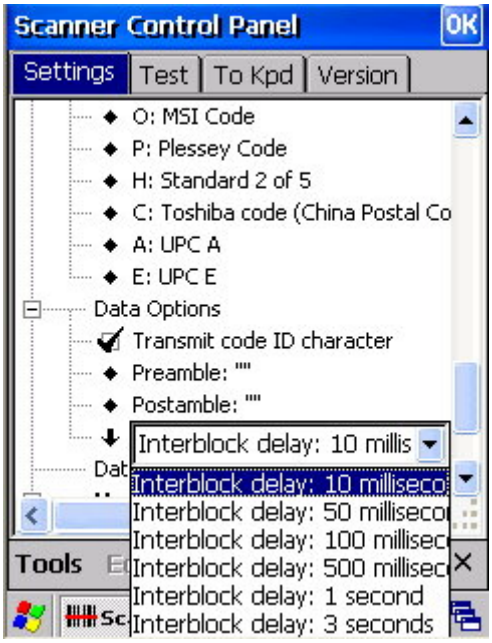


9. Tap "**Transmit code ID character**" if you want to transmit the code ID.

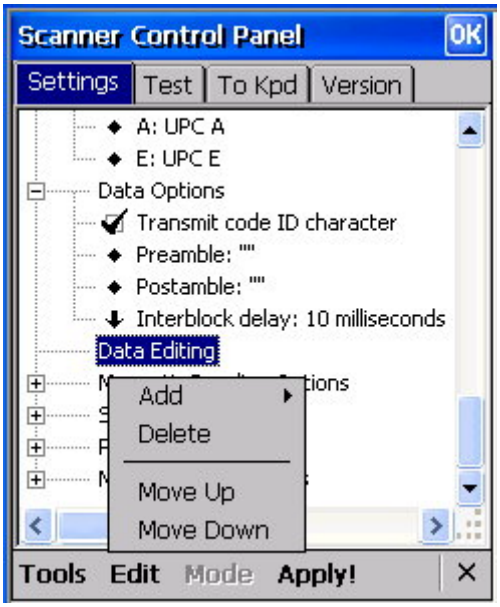
10.Double tap "**Preamble**" or "**Postamble**" if you want to add them to the barcode. Key in the special character stated in the Set Data window. Tap OK



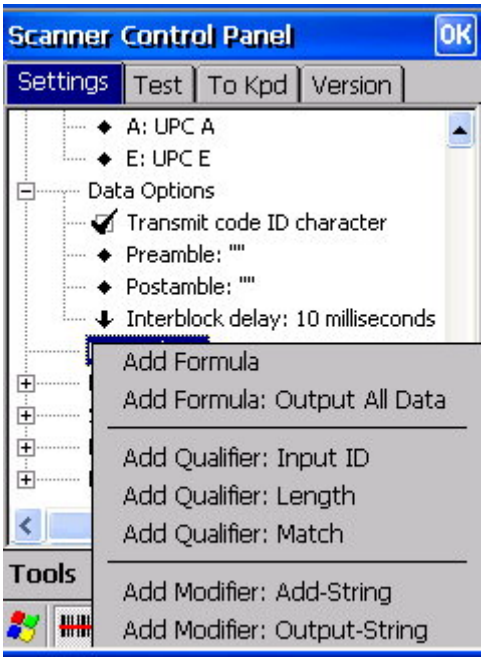
11. Double tap "**Interblock delay**". Select the delay time from the drop down list.



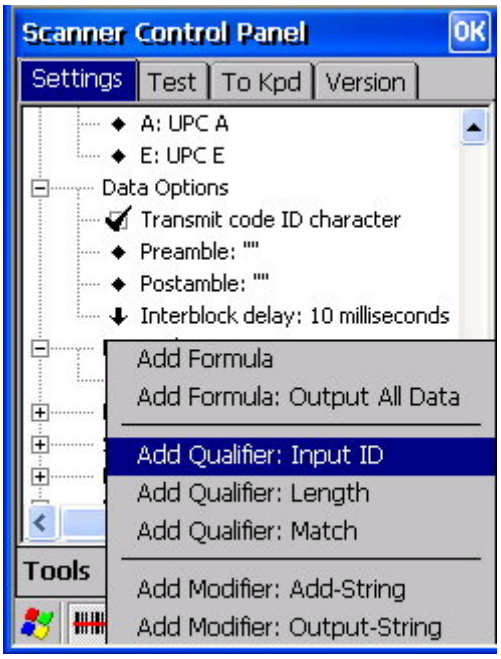
12.Tap "**Data Editing**". Tap "**Edit/Add**" at the bottom. A menu will pop up.



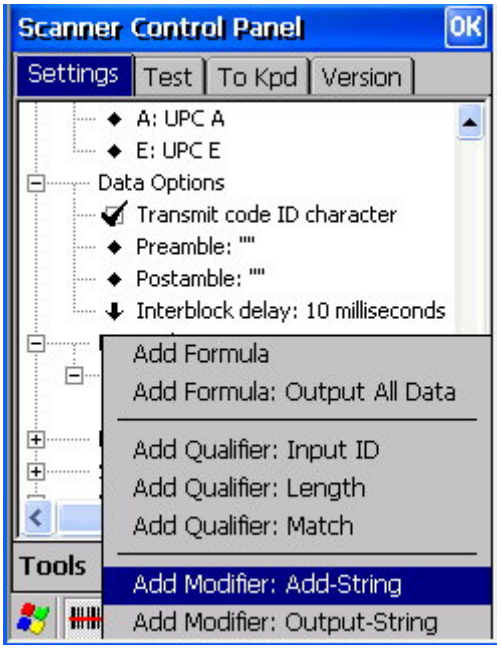
13. Select "**Add Formula**" or "**Add Formula: Output All Data**". A formula will be added under "**Data editing**".



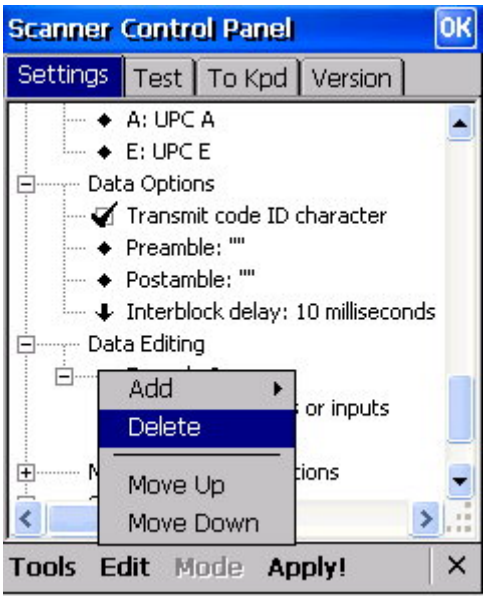
14. Tap "**Formula**". Tap "**Edit/Add**" . Select "**Add Qualifier**".



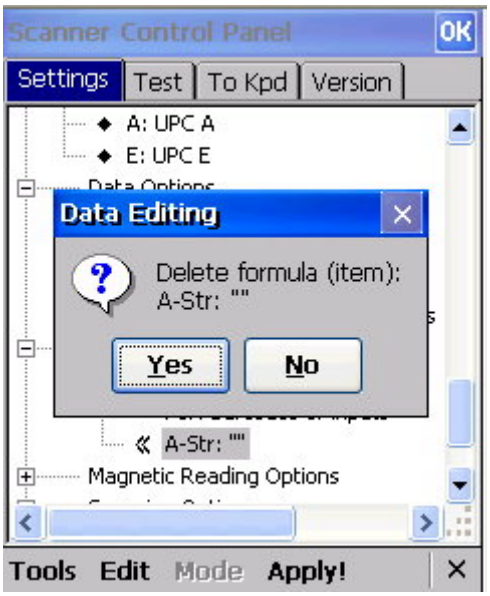
15. Tap the qualifier you just added. Tap "**Edit/Add**". Select "**Add modifier**".



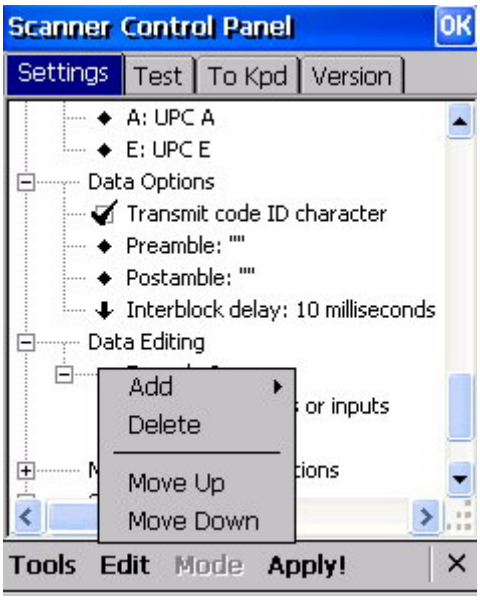
16. To delete a formula or qualifier or modifier, just tap it and tap "**Edit/Delete**".



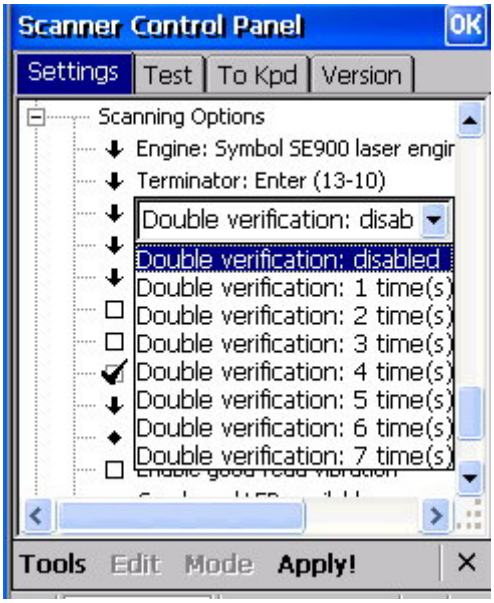
17. Delete Formula XXX? Select **Yes**



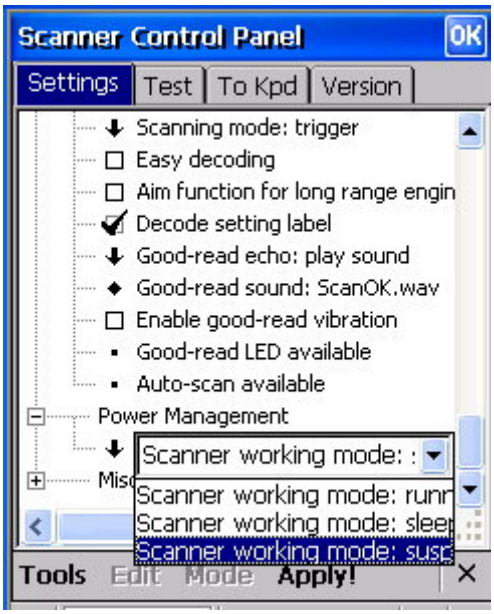
18. To re-arrange the sequence of the criteria, you may select "**Edit/Move up**" or "**Edit/Move Down**".



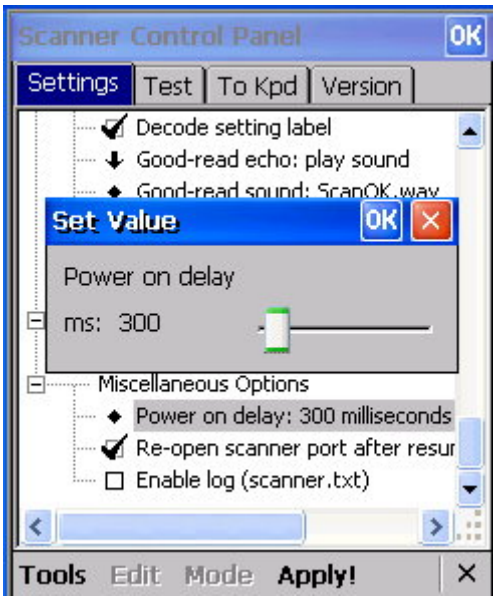
19. Tap "**Scanning Options**". Double tap options below to make the setting.



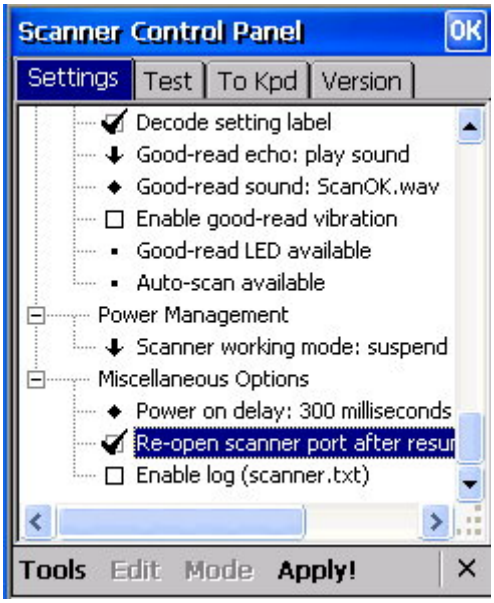
20. Tap "**Power Management**". Select the scanner working mode.



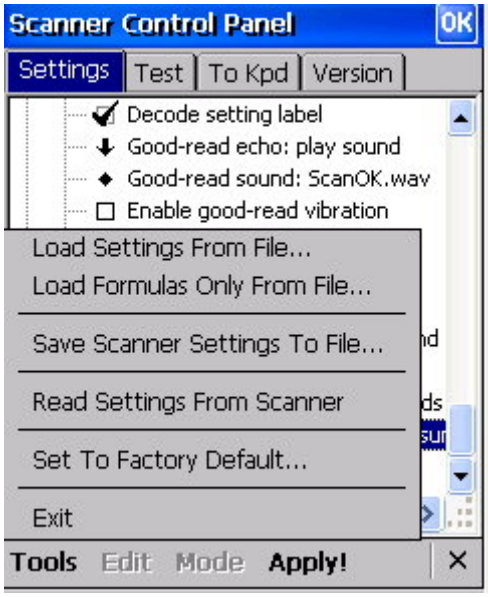
21. Tap "**Miscellaneous Options**". Double tap "**Power on delay: 300(ms)**". Drag to define the delay. Tap OK



22. Check "**Re-open scanner port after resume**". Scanner port will be reopened after you suspend and power on the terminal.



23. Tap "**Tools**" at the bottom. You will see a selection menu pop up.



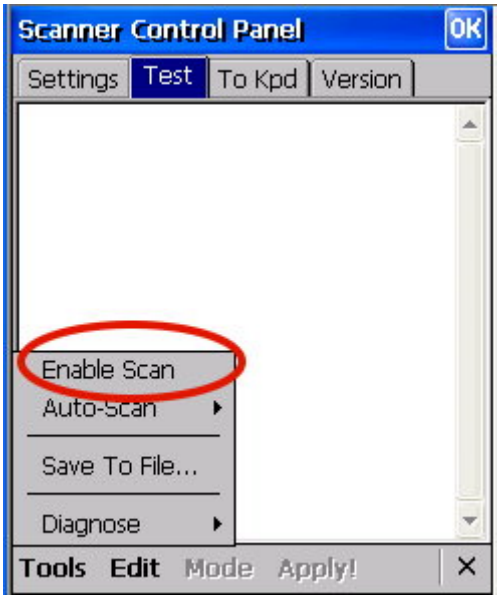
24. Select "**Load Settings From File**" or "**Load Formulas Only From File**". Load the existing scanner settings / formula file. (If you have saved a settings / formula file before)

25. Select "**Save Settings to File**". Save the current scanner setting as *.USI file.

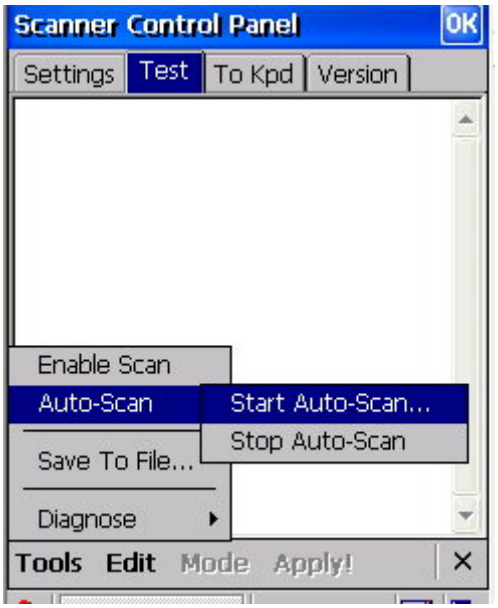
26. Select "**Read Settings from Scanner**". You can read the setting from a barcode and dump it to the setting.

27. Select "**Set To Factory Default**". Tap OK. The scanner setting will be reset to the original setting.

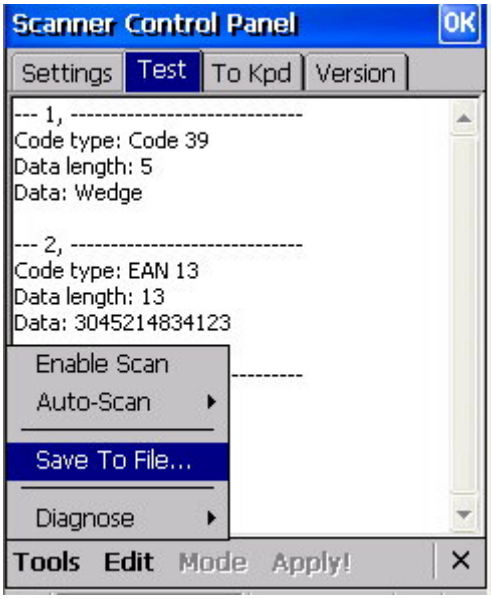
28.Under Test tab, select "**Tools**"→"**Enable Scan**". Press scan key to scan the barcode. Barcode data is scanned and displayed.



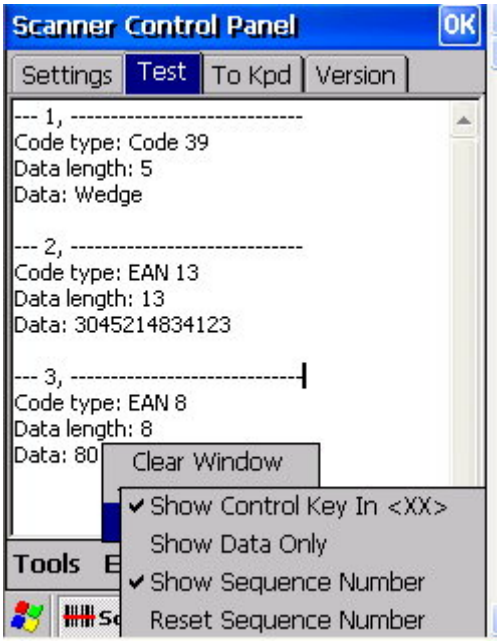
29. Select "**AutoScan**" , select "**Start AutoScan**". (Default: 3 secs). Laser will emit in every 3 seconds to read the barcode automatically. To stop the laser, select "**AutoScan**" → "**Stop AutoScan**".



30. Select "**Save to File**". Save the scanned contents as a file.

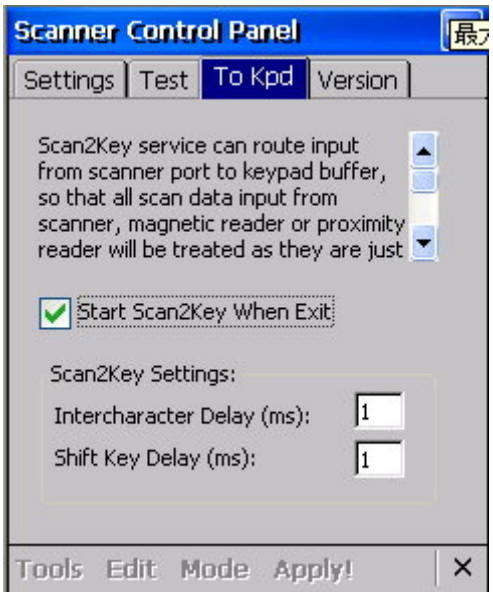


31. Select "**Edit/Display Input**". Select "**Show control key in <XX>**", Control key will be displayed as Hexadecimal code. Select "**Show Data Only**", only barcode data is displayed. Select "**Show Sequence Number**", sequence number is listed before the barcode data. Select "**Reset Sequence Number**", sequence number is reset to 1.

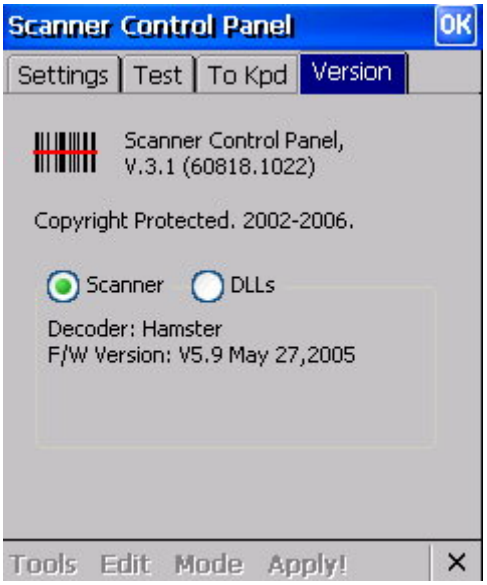


32. Select "**Edit/Clear Window**", all the contents will be erased.

33. Under **To Kpd** tab.Check "**Start Scan2key When Exit**". Scan2Key is enabled. You can scan barcode data into word processor (Ex: Pocket Word)



34. Under **Version** tab, view decoder version and F/W version.



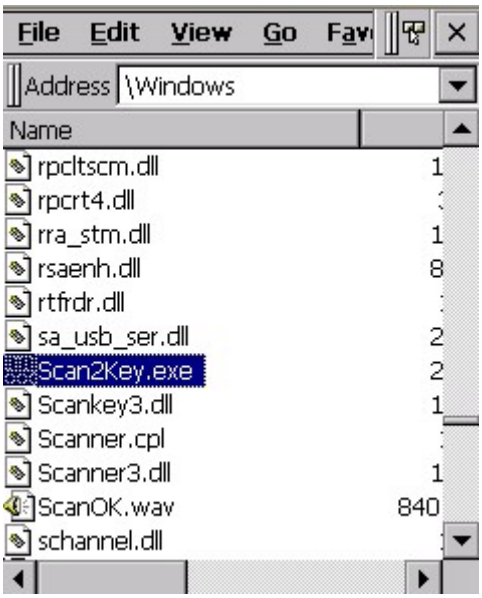
Chapter 7 Scan2Key

Scan2Key application can route input from scanner port to keypad buffer, so that all input from scanner or magnetic reader will be treated as they are just input from keypad. With this router, scan data can be directly input into non-scanner port aware application.

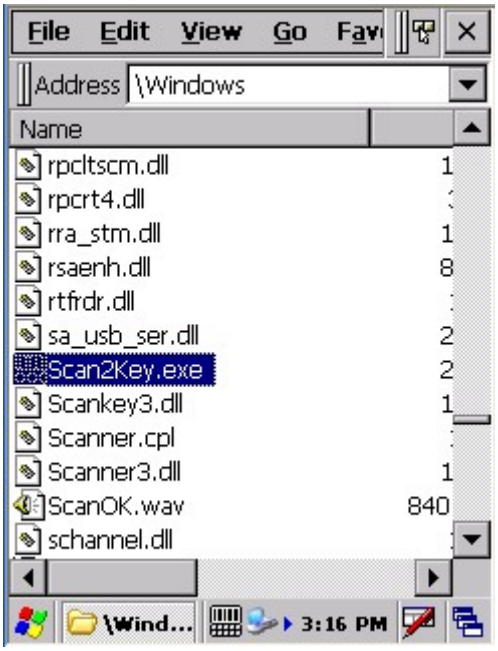
Path: /My Computer/Windows/Scan2Key.exe

For Scan2Key (Old Version)

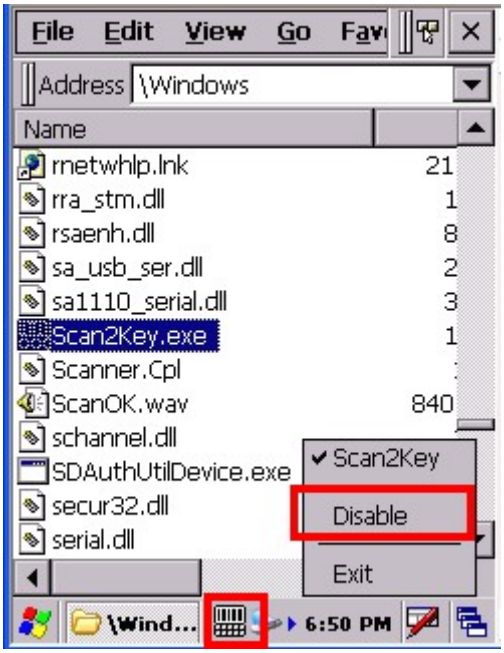
1. Double tap "**Scan2Key**".



2. You will see Scan2Key icon on the task bar. Scan2Key is enabled.



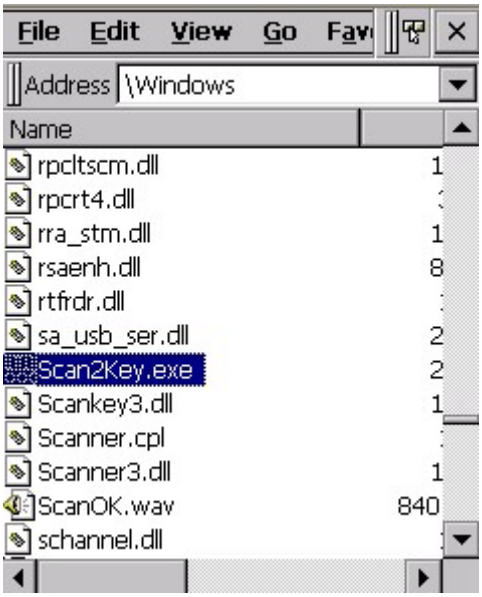
3. To disable the Scan2Key, double tap the Scan2Key icon on the task bar, a selection menu will pop up. Select "**Disable**".



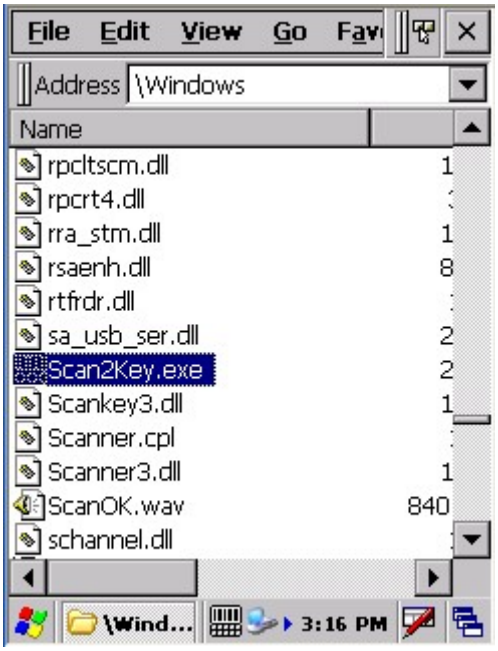
4. To close Scan2Key, select "**Exit**" on the pop up menu.

For Scan2Key (New Version)

1. Double tap "**Scan2Key**".

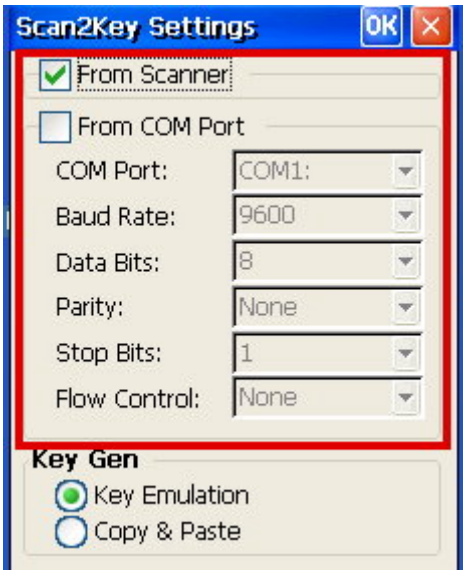


2. You will see Scan2Key icon on the task bar. Scan2Key is enabled.

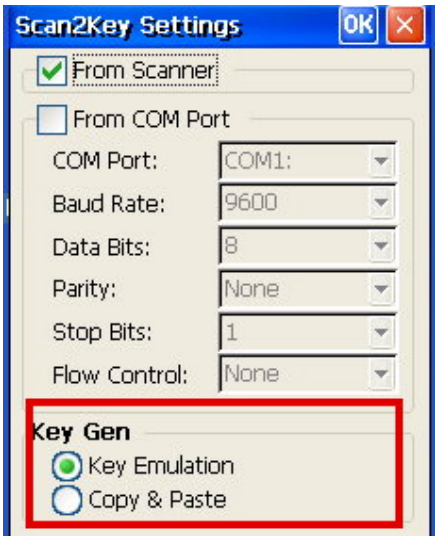


3. Double tap the Scan2Key icon on the task bar, a selection menu will pop up. Select "**Settings**".

4. If the barcode is input from the scanner, check "**From Scanner"**; If the barcode is input from the com port, check "**From COM Port**", then define the transmission settings.



5. Under **Key Gen**, define the behavior. For character by character transmission, select "**Key Emulation**". For string transmission, select "**Copy & Paste**".



Note:

1. **For Asian Language OS, always select “Copy & Paste”, so that the alpha-numeric barcode is scanned accurately.**
2. **If you scan the barcode to RDP server, please select “Key Emulation”. Do not select “Copy & Paste”.**

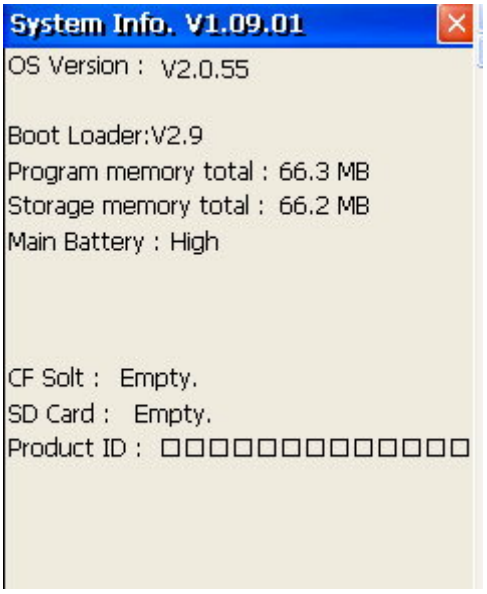
Chapter 8 Func9

This tool displays the general information of the terminal such as platform, firmware version, device ID etc.

Path: Start Menu/Programs/Utilities/Func9

1. Select **Start Menu -> Programs -> Utilities -> Func9**

2. Device information is shown as below:

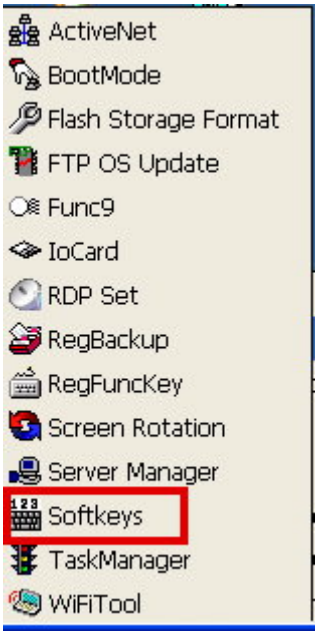

System Info. V1.09.01
OS Version : V2.0.55
Boot Loader:V2.9
Program memory total : 66.3 MB
Storage memory total : 66.2 MB
Main Battery : High
CF Solt : Empty.
SD Card : Empty.
Product ID : □□□□□□□□□□□□□

Chapter 9 Softkeys

This tool is to execute the screen keyboard. (For MR650 only)

Path: Start Menu/Programs/Utilities/Softkeys

1. Select **Start Menu -> Programs -> Utilities -> Softkeys**



2. You will see a keyboard icon appear on the taskbar.

3. Tap the icon. A numeric software keyboard will pop up for numeric input.

4. Tap "**EXIT**" on the keyboard to close softkeys.

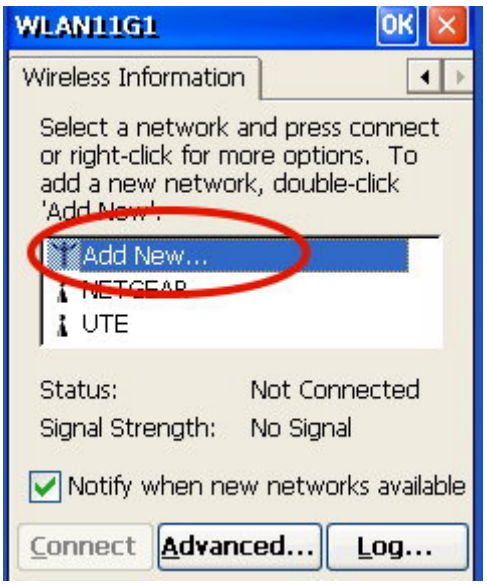
Chapter 10 Wireless LAN Connection

Unitech terminals come with built-in RF facility. This chapter guides the user on how to setup the RF setting.

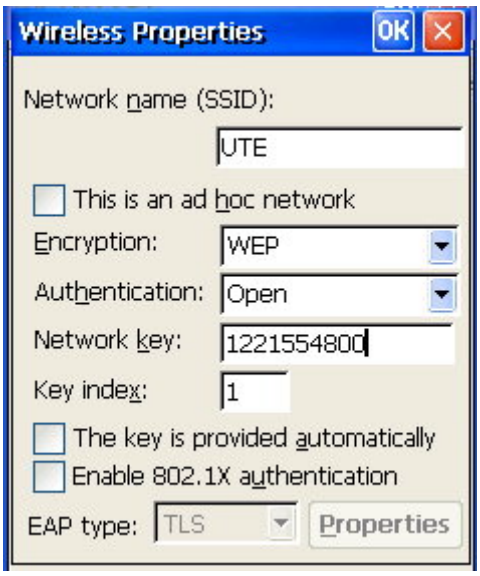
10.1 (For Zcom RF card/Broadcom RF card)

1. Power on the terminal. Once the RF card is detected, you will see the RF setting window pop up.

2. Tap "**Add New**"(Or double tap your preferred network) to add a new SSID.

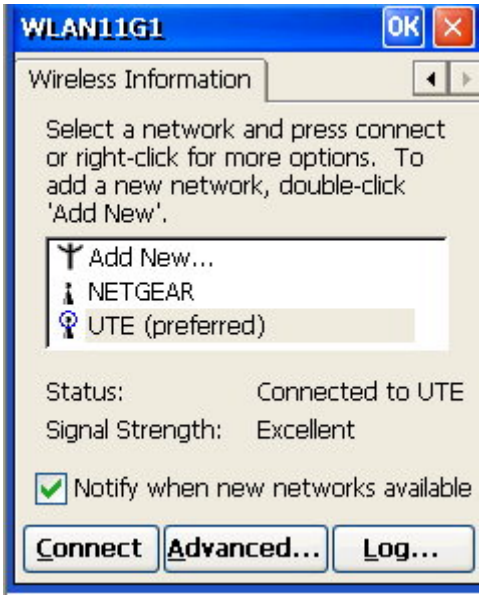


3. Enter the SSID. Uncheck "**The key is provided automatically**". Enter the network key.



4. Tap OK

5. Start to search for RF signal and the RF is connected.

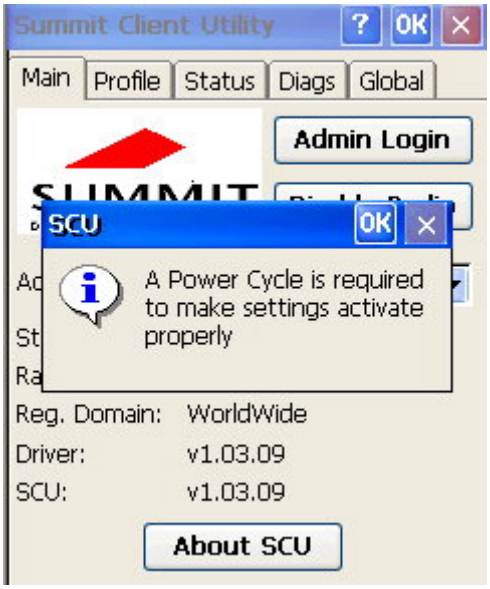


10.2 (For Summit RF card)

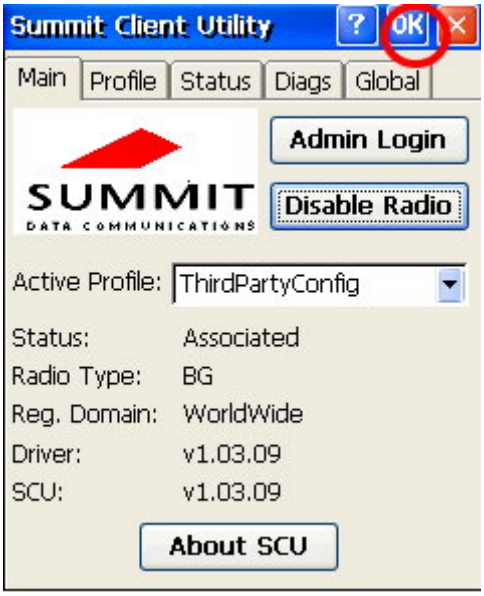
1. Double tap the **Summit Client Utility.**

2. Under **Main** tab, for **Active Profile**, select "**ThirdPartyConfig**".

3. A Power Cycle is required to make settings activate properly. Tap OK

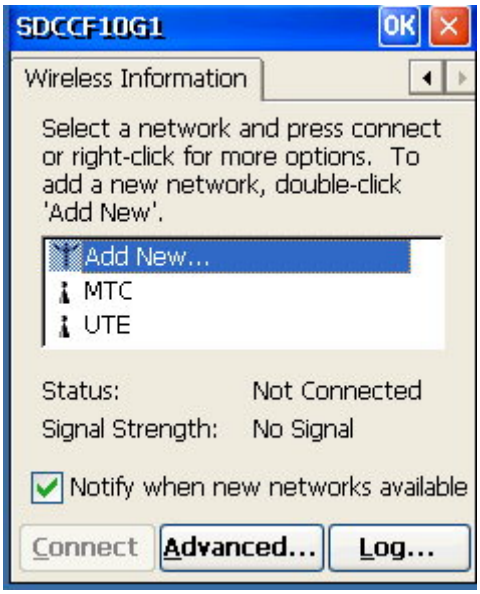


4. Tap OK



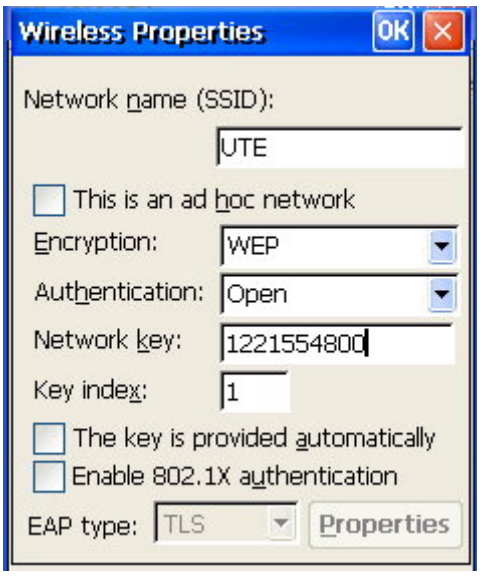
5. Warm start the terminal.

6. Once the RF card is detected, you will see the RF setting window pop up.



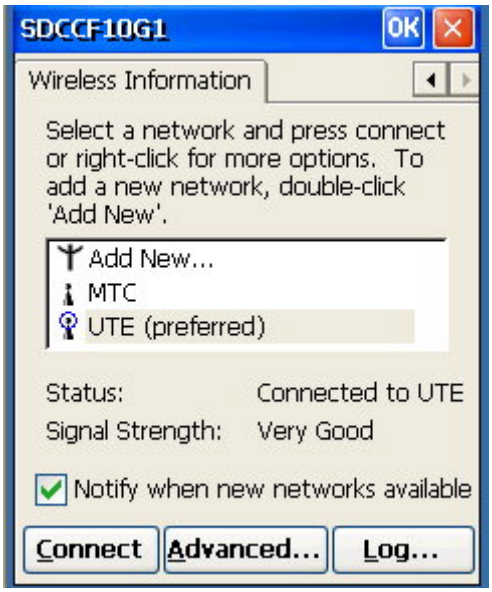
7. Tap "**Add New**"(Or double tap your preferred network) to add a new SSID.

8. Enter the SSID. Uncheck "**The key is provided automatically**". Enter the network key.



9. Tap OK

10. Start to search for RF signal and the RF is connected.



Note: The RF setting is based on how your AP and RF environment is built. Please consult your network engineer for the best RF connection.

Chapter 11 WiFi Tool

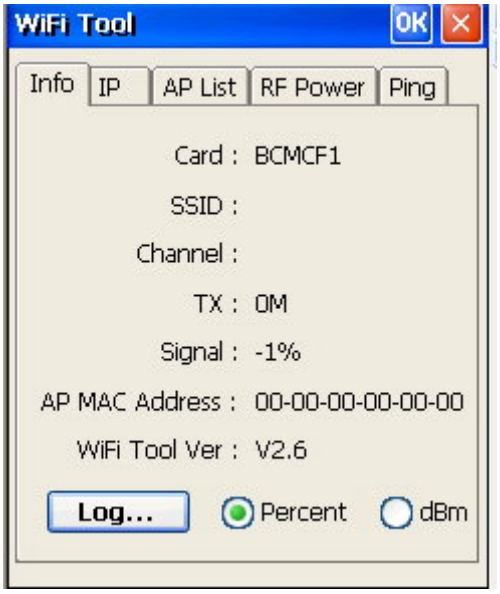
11.1 Introduction

This utility is designed for the purpose to provide you with a range of WiFi related tools to aid you in both site surveying and normal daily operation of the wireless LAN.

Path:/Start/Program/Communication/WiFiTool

11.2 Info

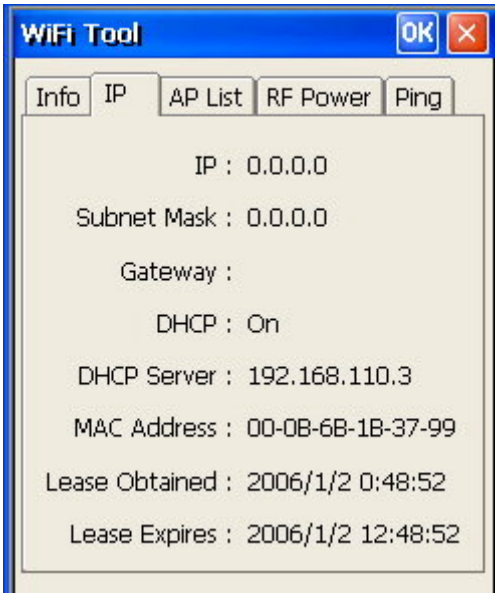
This will show the RF info including SSID, channel, signal, MAC address and WiFiTool version.



11.3 IP

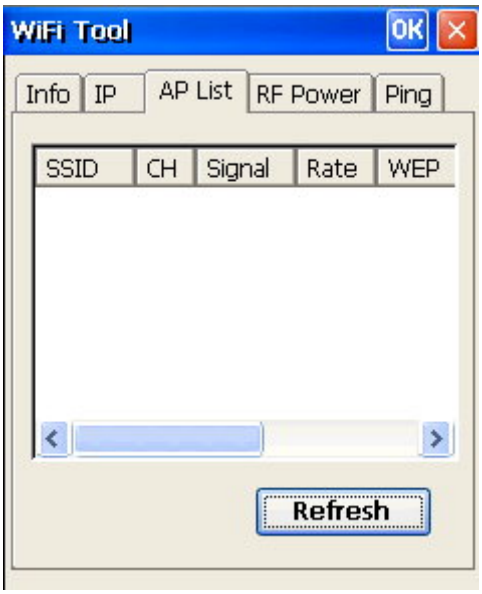
Under

tab, you can check the IP address,Gateway, DHCP…etc.



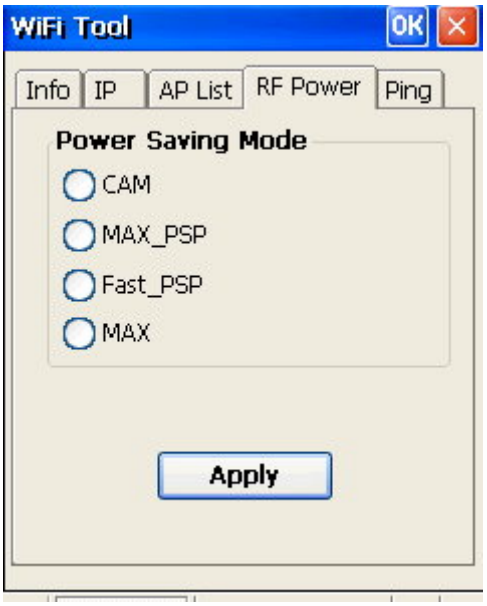
11.4 AP List

List out the AP available.



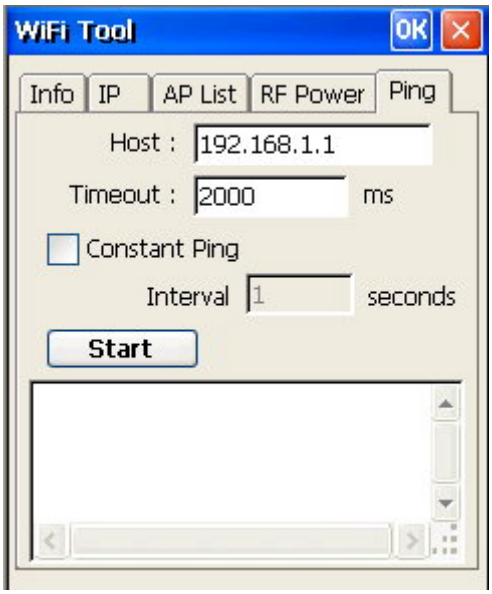
11.5 RF Power

Let user define the RF Power. After selected, tap **Apply**



11.6 Ping

Let user ping to other device in the LAN network.Tap **Start** to ping.



Chapter 12 Bluetooth Connection

12.1 Bluetooth Print

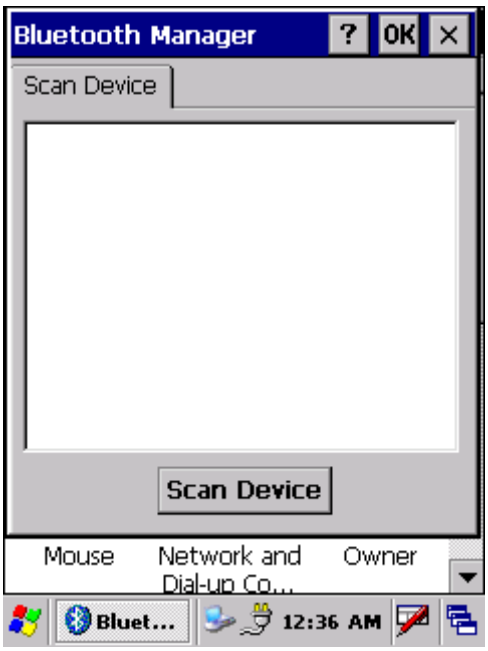
Equipment used (Example)

Zebra Printer QL320 with integrated BT module

1. Tap **Start Menu** ->**Program** -> **Bluetooth** -> **BTPowerON**.

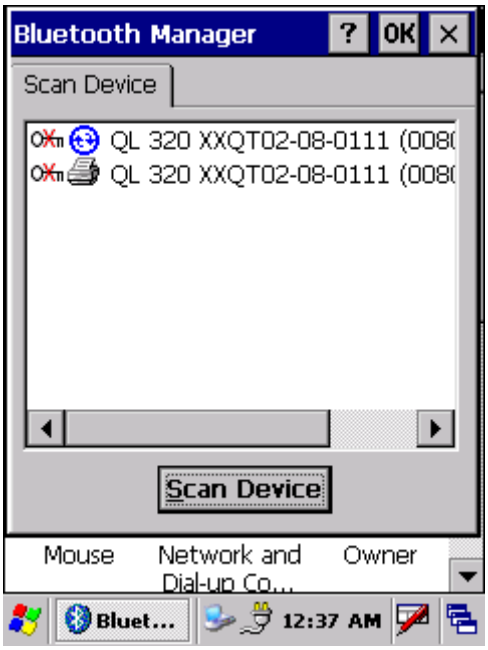
2. Select "**Bluetooth Module Power On**". Tap OK

3. Tap **Settings** -> **Control Panel**, tap "**Bluetooth Device Properties**".



4. Power on the Zebra QL320 and wait a few seconds for the QL320 BT module to initialize.

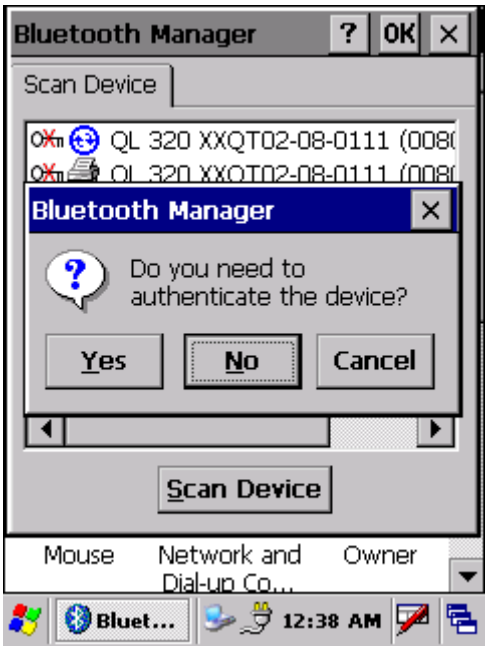
5. Tap **Scan Device**



After 10 to 30 seconds, the Zebra QL320 is found.

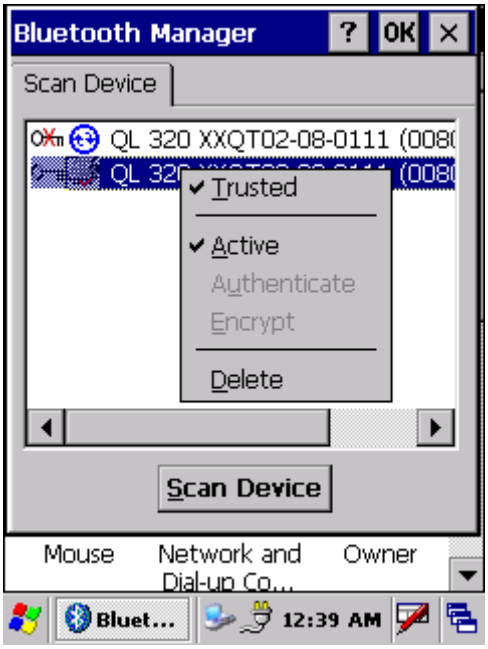
6. Double tap the printer icon to get the context menu.

7. Tap “trusted”. A dialog box appears asking if authentication is required.

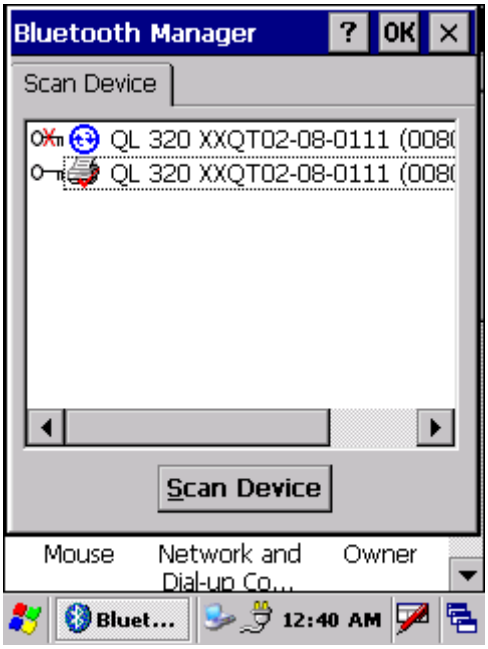


8. Depending on your setup, select **Yes** or **No.** (In Unitech’s testing, select **No**, for example.)

9. Double tap the printer icon again to get the context menu and uncheck **Authenticate** and **Encrypt**. Then check **Active**. NOTE: For each check or uncheck, you need to open the context menu again.



10. After the BT printer connection is completed, the printer icon should be displayed with a red check mark.



11. Tap **Start Menu** -> **Program** -> **Bluetooth**, tap "**BTPrinter**".

12. BTPrinter icon appear on the taskbar.

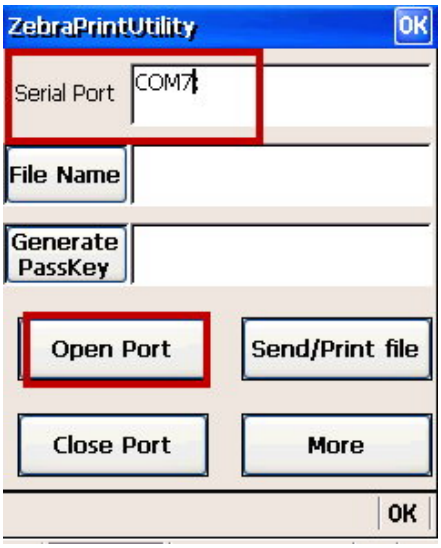
13. Double tap the icon. BTPrinter window pop up. Tap **Inquiry**

14. QL320 zebra printer and other devices are found. Select the QL320, tap **OK** BTPrinter window back to taskbar.

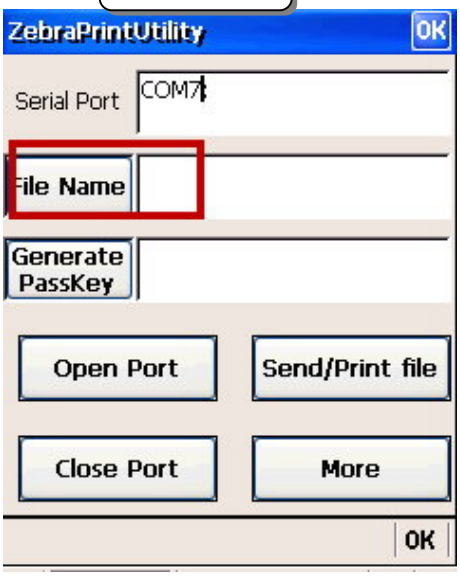
15. Tap the icon again, at the bottom of BTPrinter, you will see XXX running on com7.

16. Run ZebraPrintUtility(You can get it from Unitech)

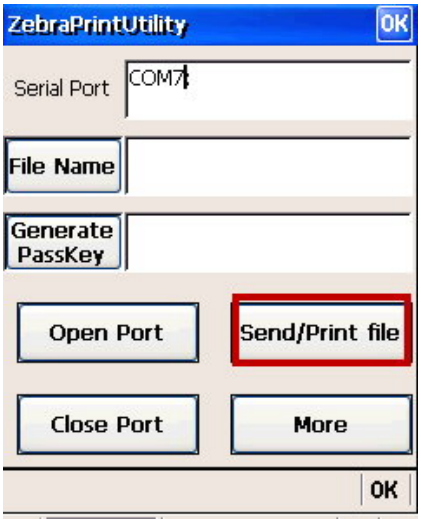
17. On **serial port** field, enter "**COM7:**".Tap **Open Port**



18. Tap **File Name** .Select the label you want to print.



19. Tap **Send/Print file** The label is printed out.

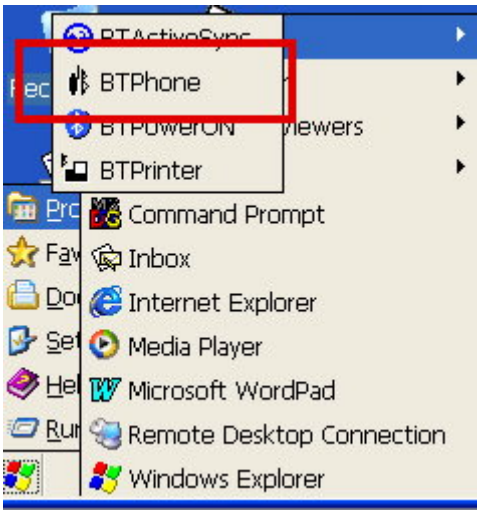


20. Tap **Exit** in BTPrinter to terminate BT print.

12.2 Bluetooth Phone

This tool allow you to make synchronization with your bluetooth mobile phone.

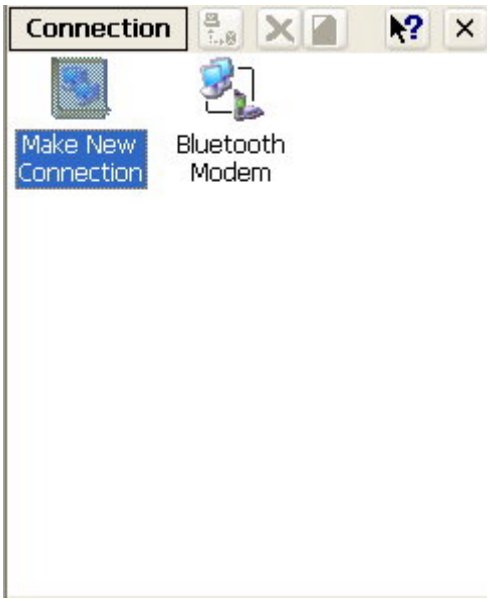
1. Double tap **Start Menu → Program → Bluetooth → BTPhone**



2. Tap "**BTPhone**" icon. Tap **Inquiry** . A list of devices are found. Select the mobile phone you want to connect. Tap **OK**

Test Connection

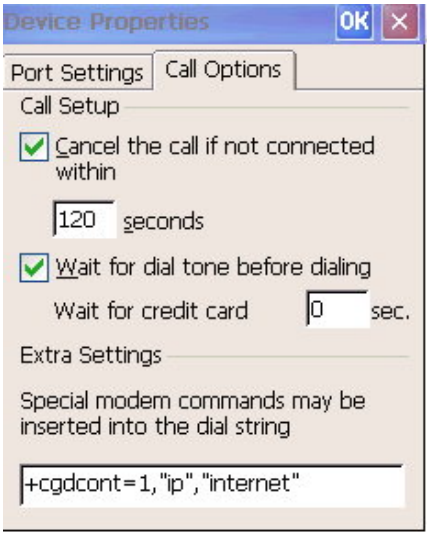
1. Tap **Start Menu → Settings → Network&Dial-up connection**, double tap "**Make new connection**".



2. Type a name for the connection. Select "**Dial-up connection**". Tap **Next**

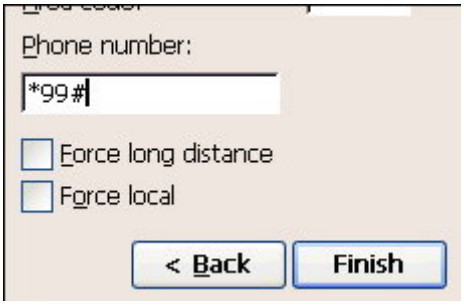
3. Under "**Select a modem**" pull down menu, select "**BluetoothDUN**". Tap **Configure** (The mobile phone might prompt for the pin, make sure you key in the same pin on the mobile phone and terminal)

4. Tap **Call Options** tab, you may need to enter special commands for special Modem (Depends on the ISP of your sim card)



5. Tap OK . Tap **Next**

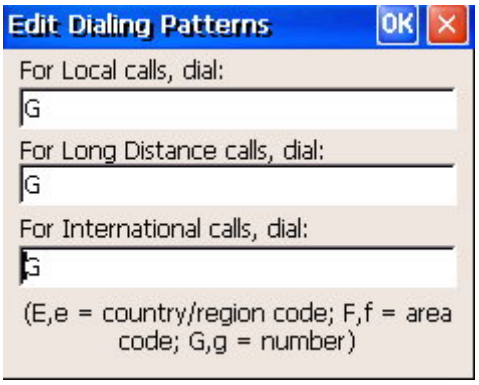
6. In phone number, type "***99#**". Tap **Finish**



7. Double tap the connection you made. Tap **Dial Properties**

8. Tap **Edit**

9. Enter "**G**" for every call pattern.



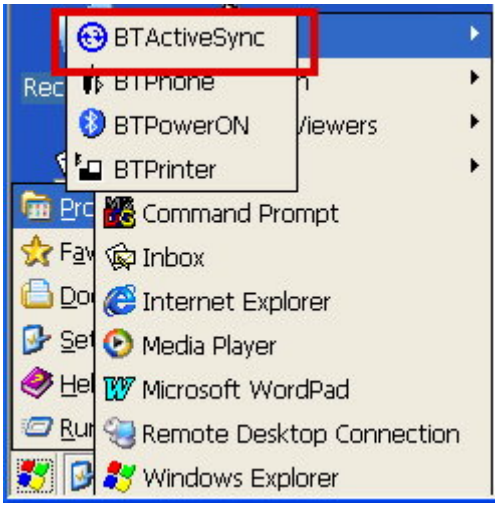
10. Tap OK , OK . Tap **Connect**

11. Terminal connected to the mobile phone via the bluetooth.

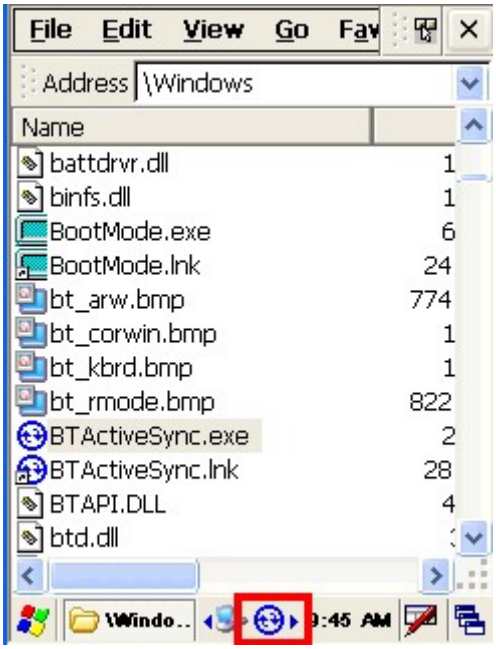
12.3 Bluetooth Activesync

This tool allow you to make the data synchronization with your remote device thru the bluetooth activesync.(On host's Activesync connection setting, select the appropriate com port for bluetooth port)

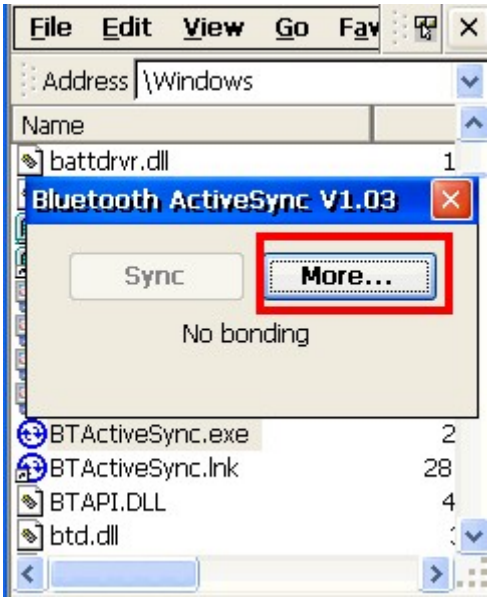
1. Tap **Start Menu → Program → Bluetooth →BTActiveSync**



2. An icon appear on the taskbar. Double tap the icon.



3. You will see the Activesync window pop up. Tap **More**



4. Tap **Inquiry** Select the bluetooth device you want to sync to. Tap **OK**

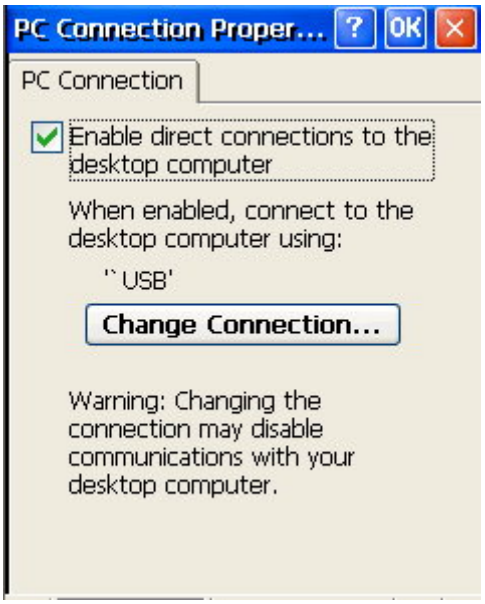
5. Tap the BTActiveSync icon again. Tap **Sync**

6. Activesync begin.

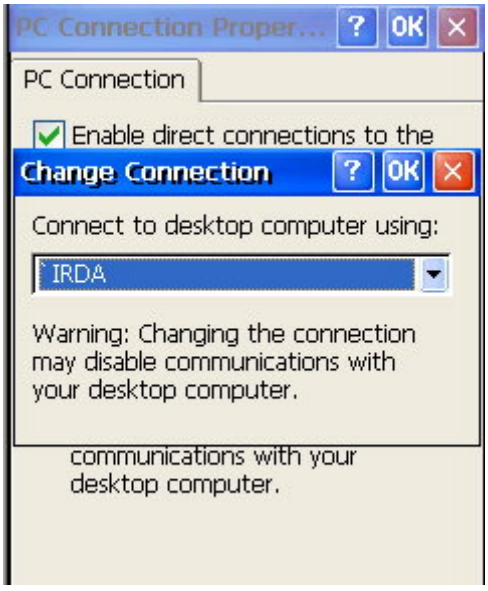
Chapter 13 IrDA Connection

One of the wireless connections available is Infra Red Connection.

1. Tap **Start Menu → Settings→ Control Panel → PC Connection**



2. Tap **Change Connection** . Change the connection to IrDA. Tap **OK**



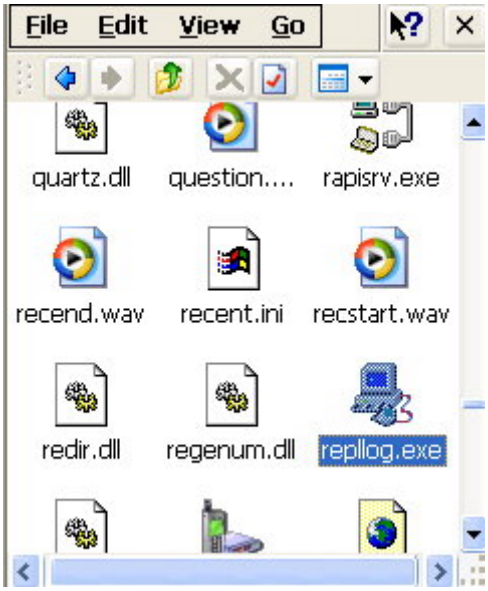
3. On your PC, run MS Activesync.

4. Select **/File/Connection Settings**, check "Allow connection to one of the following:"

5. Select "**Infra Red**".

6. Place the terminal near your PC, with the IrDA port face to each other.

7. On your terminal, run **My Device→Windows →repllog.**



8. The terminal and your PC are connected by the IrDA.

Chapter 14 GPRS Connection

GPRS connection is available on some Unitech portable terminals such as PA962, PA963, PA966 and PA967.

GPRS cards below are compatible with the terminals:

- Sierra Wireless Aircard850
- Option Globetrotter WK version

14.1 Sierra Wireless Aircard850

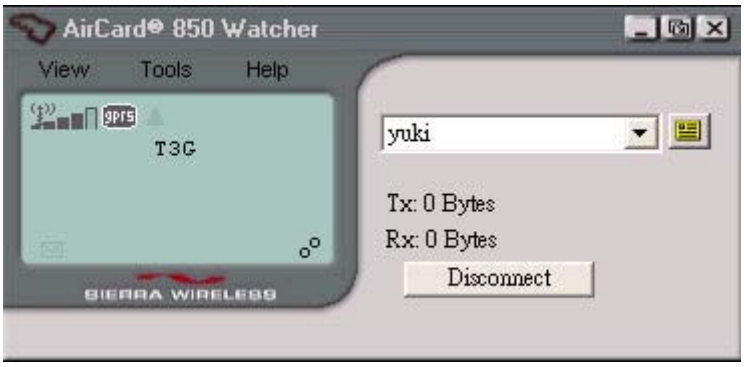
1. Install the driver & watcher in your PC (Follow the instruction in the user guide of the Aircard package).

2. Insert the sim card into Aircard850.

3. Insert the Aircard850 into the slot of your PC/notebook.

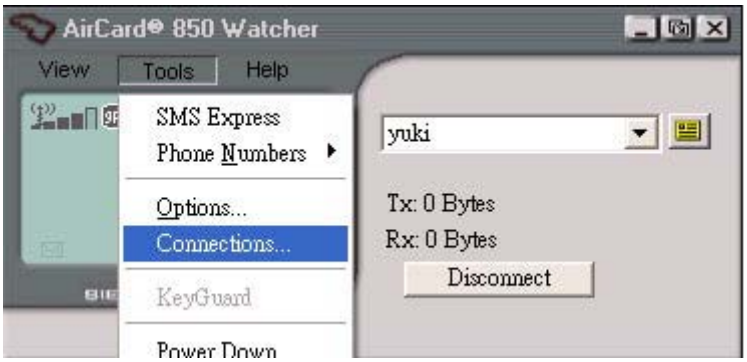
4. Run the Aircard watcher.

5. Initializing….then connect..

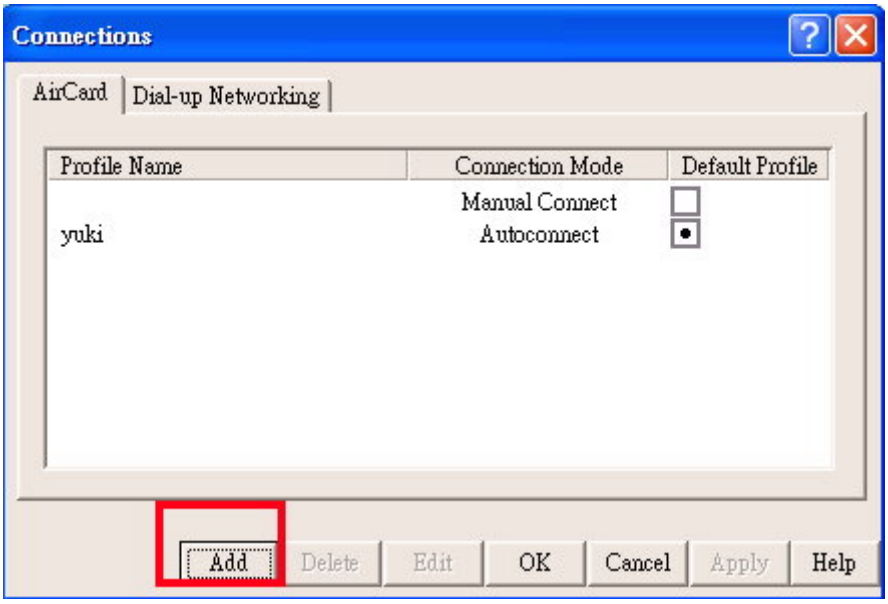


6. To add profile, click **Disconnect**

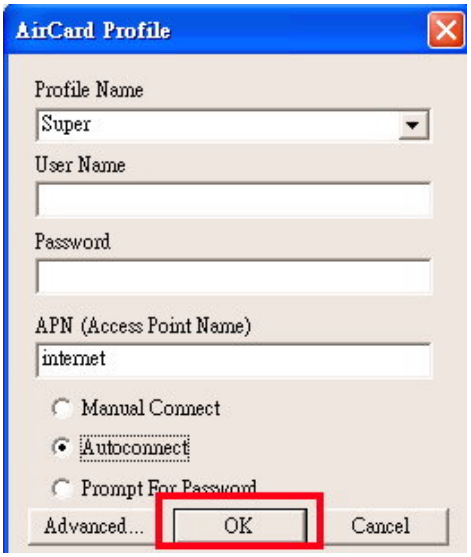
7. Select **Tools > Connections**



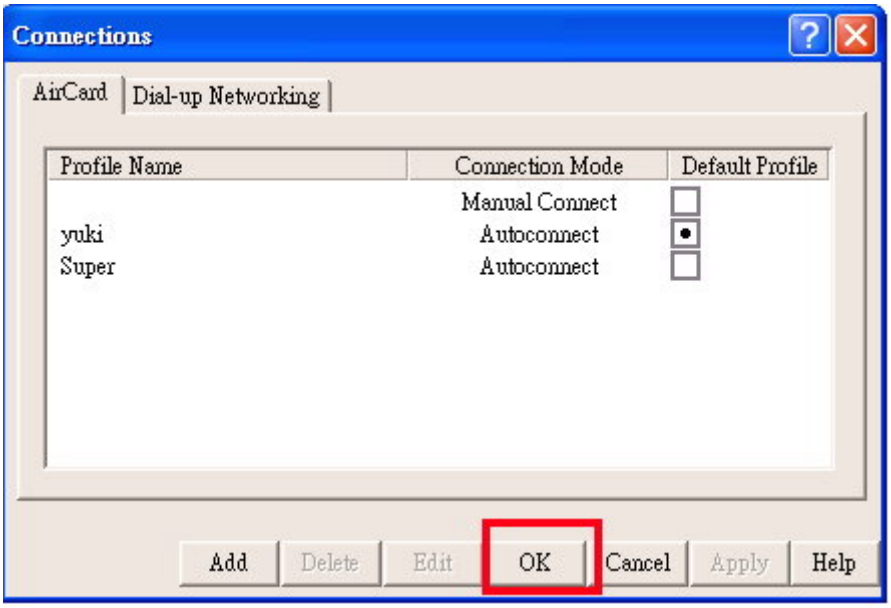
8. Click **Add**



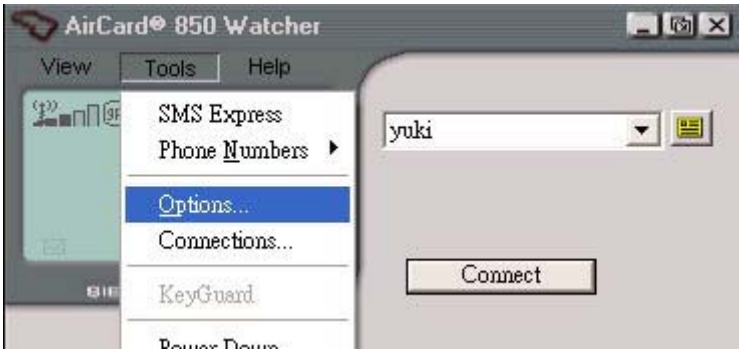
9. Select the profile name from the list, or you can enter any name. Specify the APN. Select type of connection, click **OK**



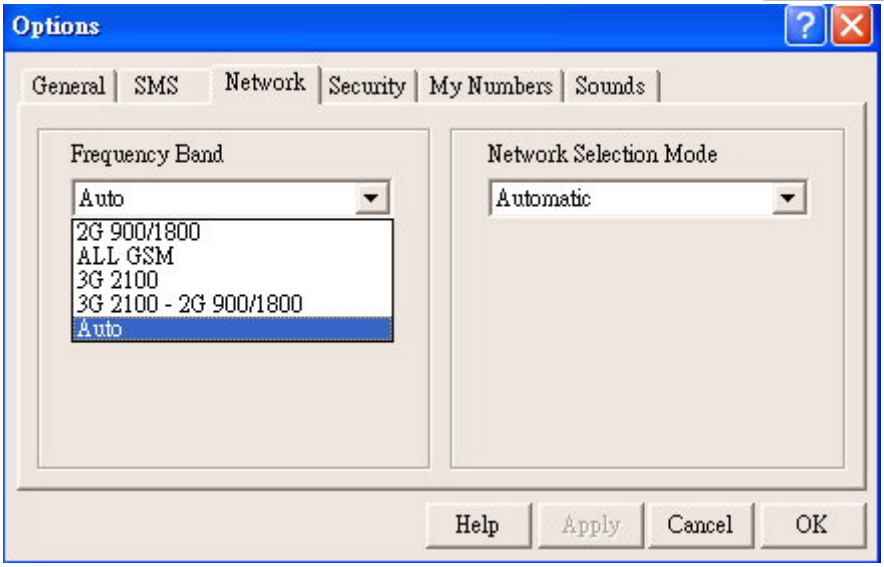
10.Click **OK** . New profile is added.



11.Select **Tools → Options**.



12.Under **Network** , select the frequency band. Click **Apply** and **OK**



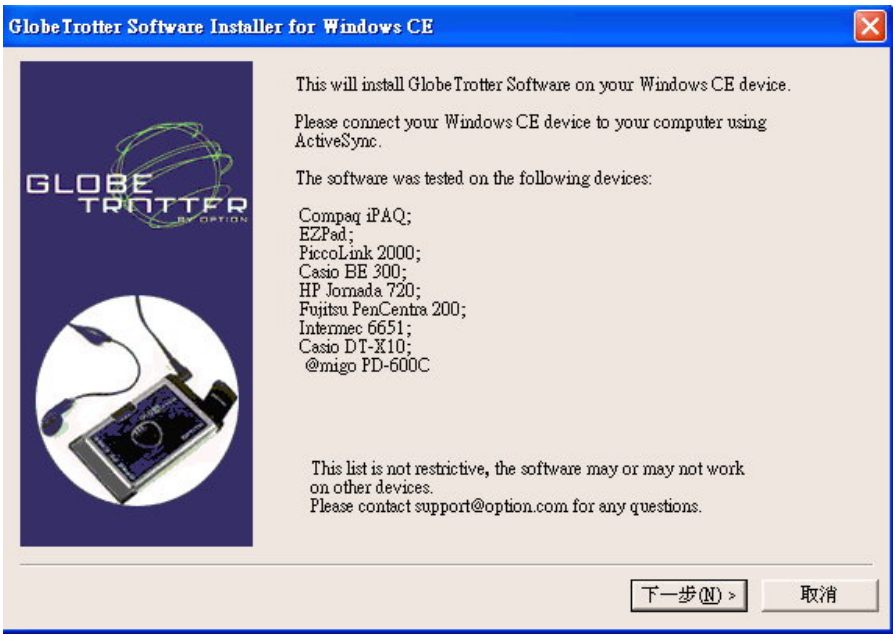
13. Select the profile from the list. Click **Connect** GPRS is connected.

14. Install the Aircard850 driver in the terminal. (GSM-NDIS.ARMV4_CENET.zip), then warm start the terminal.

15. Insert Aircard850 into the PCMCIA slot of the terminal. An icon will appear on taskbar and GPRS is connected.

14.2 Option Globetrotter WK version

1. Connect the terminal to your PC via USB. Run Activesync.
2. Double click "**APN manager**" (Option Driver in the CD)
3. Click **Next** .Wait until driver is installed. Click **Finish**



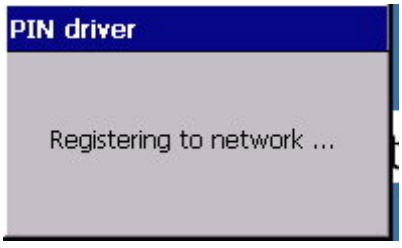
4. Warm start the terminal.

7. On the terminal, select **Start Menu → Program → Settings → Control Panel** . Double tap "**APN Manager**"

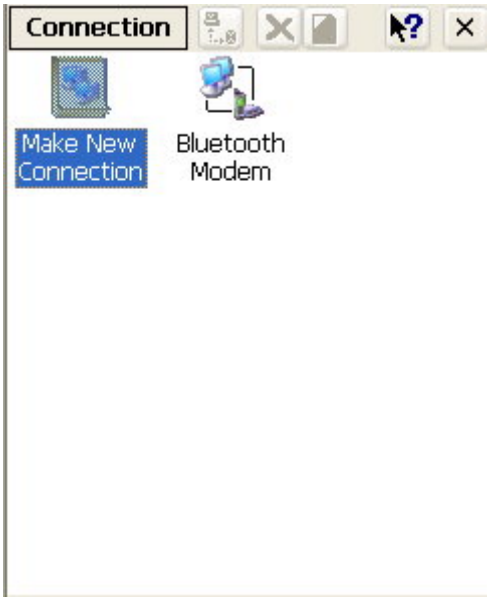
6. Tap **Add** . Enter the APN(Check the APN with your ISP provider), tap **OK**

7. Insert the Option GPRS card into PCMCIA slot.

8. You should see "**Registering to network**" and "**Setting APN**".



9. Tap **Start Menu → Settings → Network&Dial-up connection**, double tap "**Make new connection**".

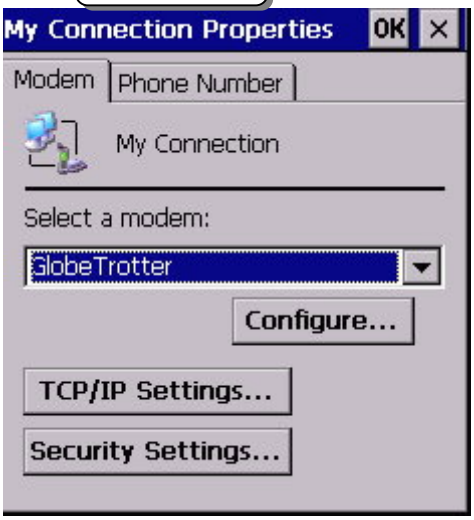


10. Enter a name for the connection.

11. Select "**Dial-Up Connection**". Tap **Next**

12. Select modem as "**Globetrotter**".

13. Tap **Configure**



.

14. Set baud rate as "**115200**", Flow control as "**None**". Tap **OK**

15. Enter phone number "***99#**".

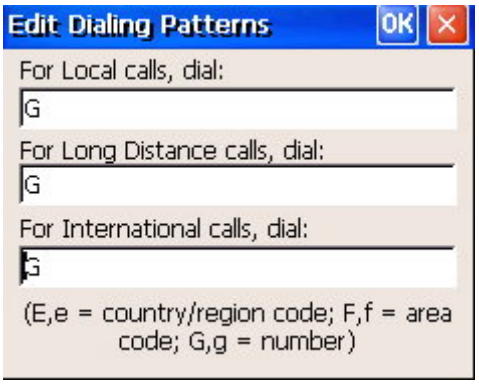
16. Tap **OK** .A new connection is created.

17. Double tap the new connection.

18. Tap **Dial Properties**

19. Tap **Edit**

20. Enter "**G**" for every call pattern.



21. Tap OK , OK .

22. Tap **Connect**

23. Opening port….Dialing…user authenticated….connected.

24. The terminal is connected to wireless network by the GPRS PC/modem card.

Chapter 15 2D Barcode Reading & Imager

2D barcode reading is available in some Unitech portable terminal, for example: PA966 and PA967.

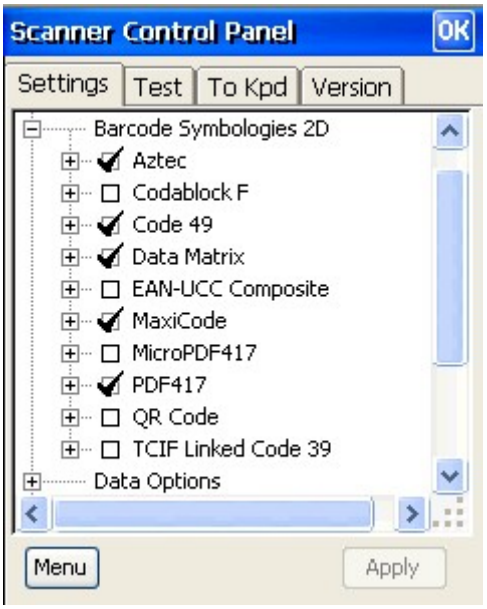
Path:/Setting/Control Panel/Scanner Setting

Utility to scan 2D barcode labels and capture image:

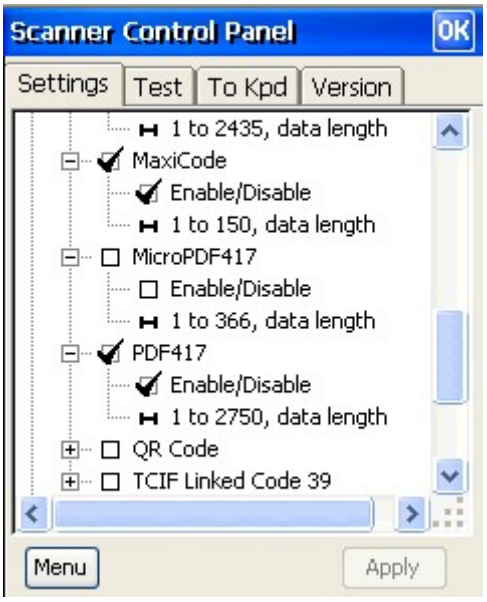
1 Define Barcode Symbologies
2 Set Data Options
3 Scanning Options
4 Imaging Options
5 Power Management
6 Text and Image

15.1Define Barcode Symbologies

1. Under **Settings** tab, tap "**Barcode Symbologies 2D**". Various 2D barcode symbologies are expanded.

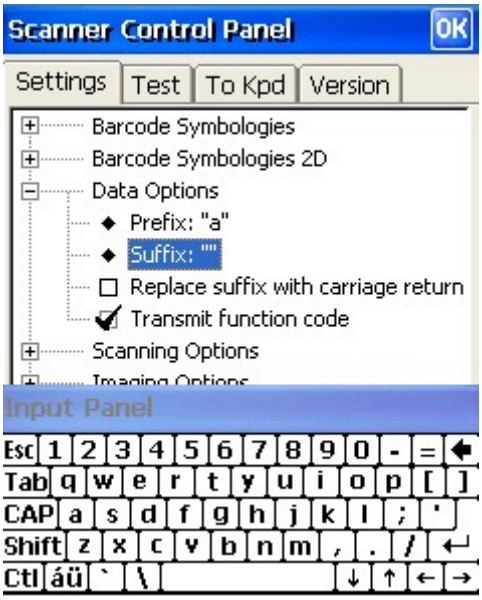


2. Tap "+" in front of each barcode symbology to further expand the options. Under each barcode symbology, enable or disable the barcode type to be scanned. The length of the barcode also can be defined. Any barcode with the length not in the range defined will not be scanned.

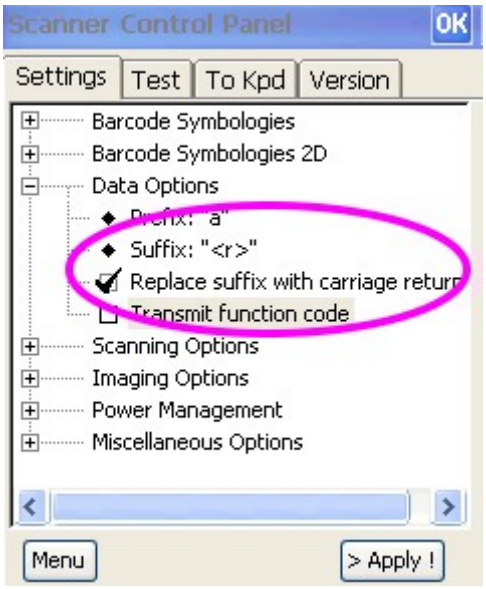


15.2 Set Data Options

1. Under **Settings** tab, tap **"Data Options"**. Enter prefix and suffix as you wish.

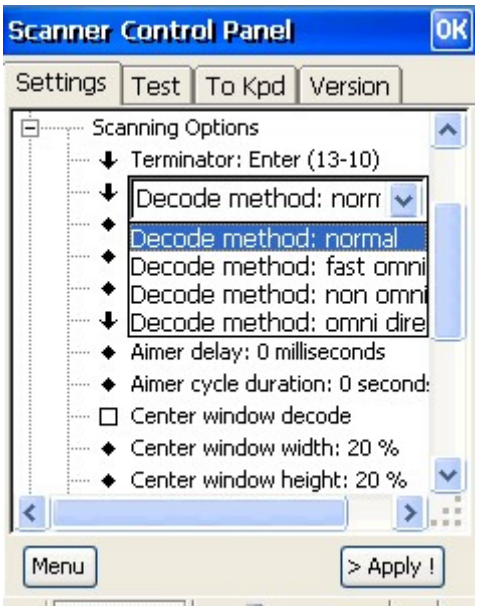


2. If you check "**Replace suffix with carriage return**", the suffix will be set to <r>.

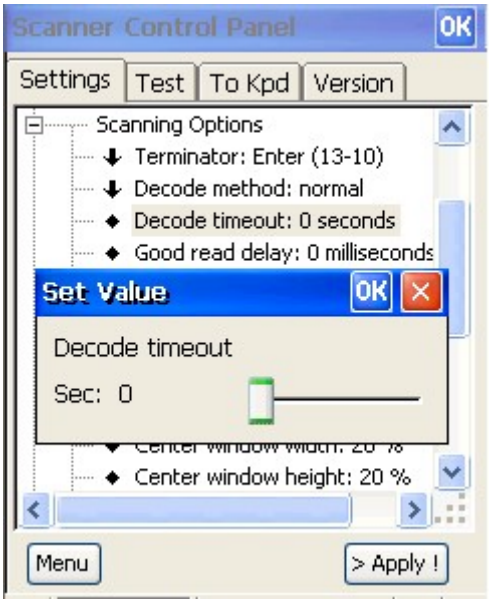


15.3 Scanning Options

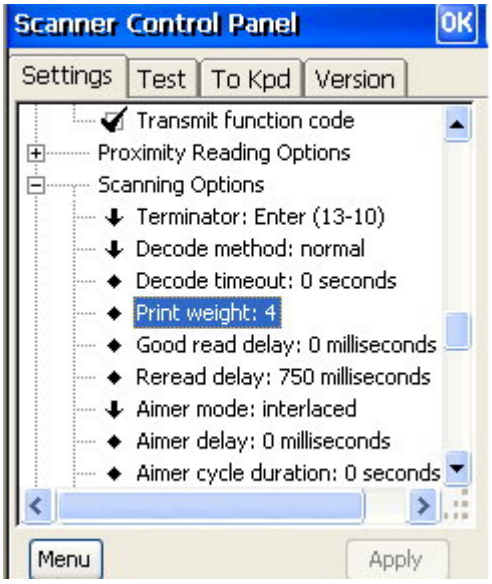
1. Tap "**Scanning Options**". Double tap "**Decode Method**". A pull down menu will show "**Normal**", "**Fast Omni Direction**", "**Non Omni Direction**" and "**Omni Direction**". User can select the decode method as required. Normal and Fast Omni Direction is to scan 2D barcode from any direction. "**Non Omni Direction**" and "**Omni Direction**" is to scan "Stacked" 2D barcode from left to right or vice versa.

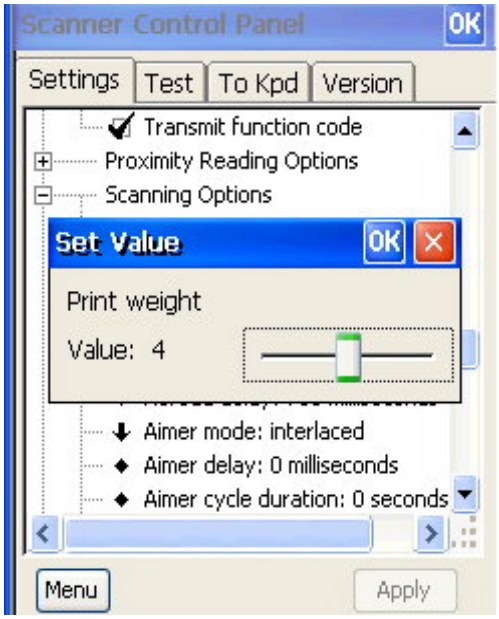


2. Double tap "**Decode timeout**". Drag to define the timeout. Tap OK

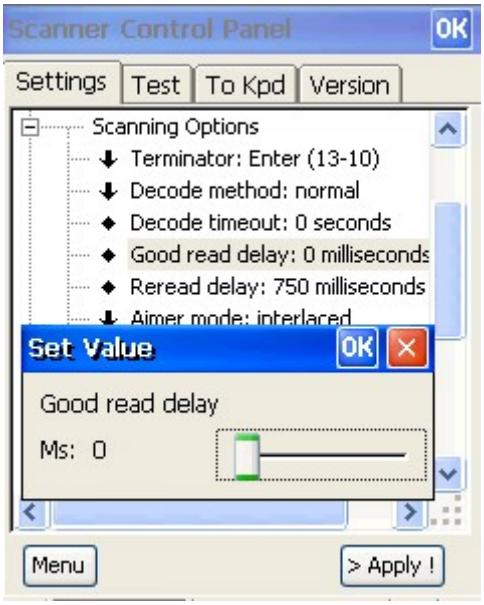


3. Double tap "**Print Weight**". Drag to define the print weight. Print weight is used to adjust the way the imager reads Matrix symbols. If a imager will be seeing consistently heavily printed matrix symbols, then a print weight of 6 may improve the reading performance. For consistently light printing, a print weight of 2 may help. Default=4.

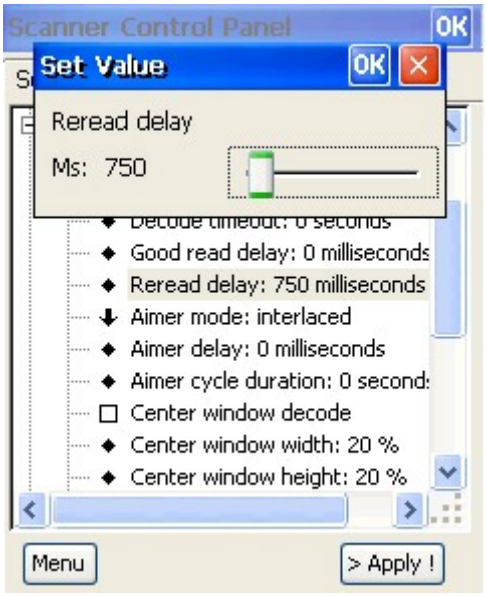




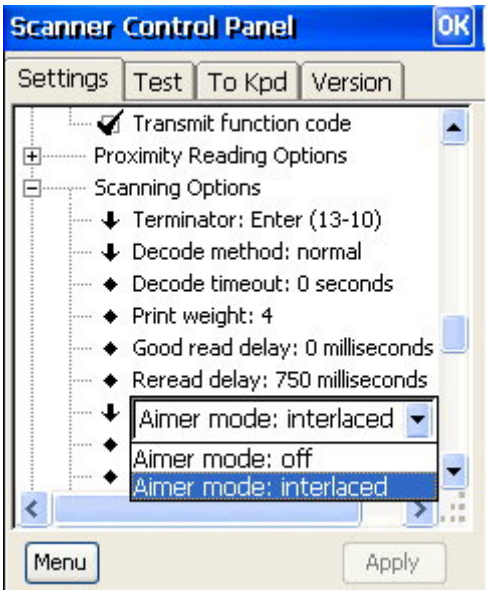
4. Double tap "**Good read delay**". Drag to define the minimum amount of time before another barcode can be read.



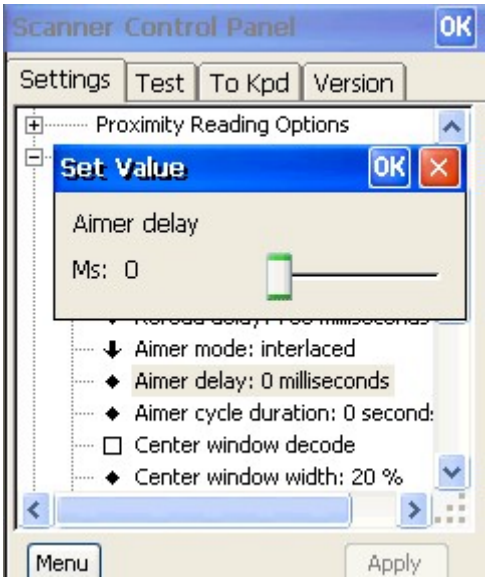
5.Double tap "**Reread delay**". Drag to define the period before the imager can read the same barcode a second time.



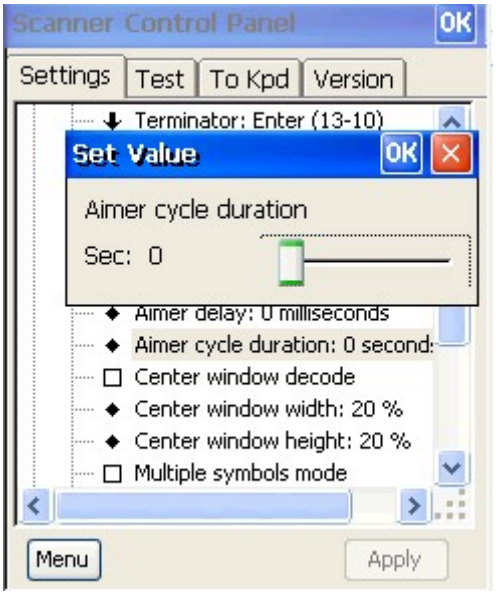
6. Double tap "**Aimer mode**". A pull down menu show "**off**"and "**interlaced**". User can select any aimer mode as required. When the **Interlaced** bar code is scanned, the aimer and illumination LEDs are not allowed to be on at the same time. Select **Off** if you do not want to use the aimer mode.



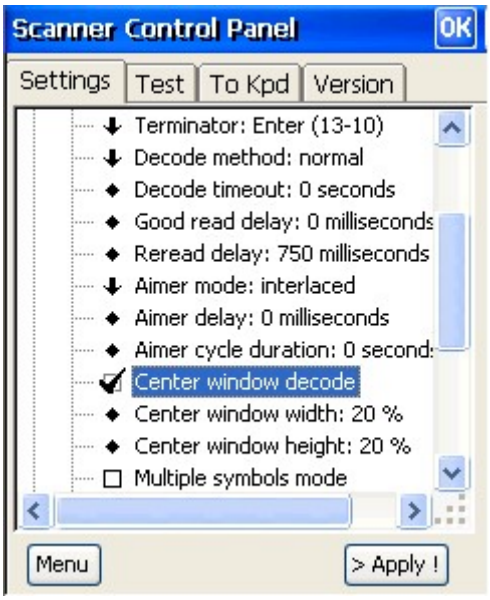
7. Double tap "**Aimer Delay**". Drag to define delay time for the operator to aim the imager before the picture is taken. During the delay time, the aiming light will appear, but the LEDs will not turn on until the delay time is over.



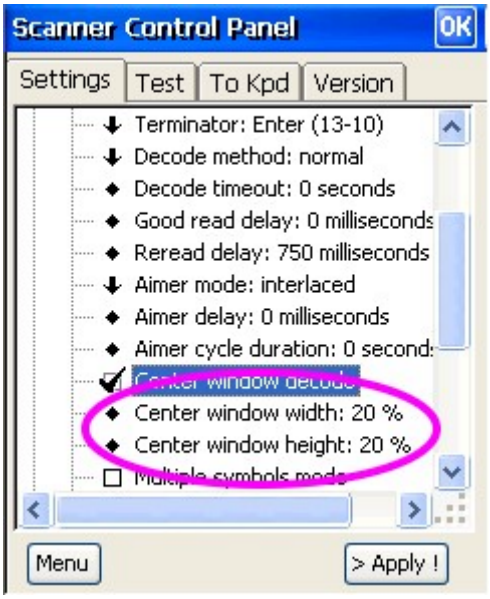
8. Double tap "**Aimer Cycle Duration** ". Drag to define the amount of time that the aimers flash during a bar code capture. After that time, the aimers remain off until a decode or a No Read Timeout is reached.



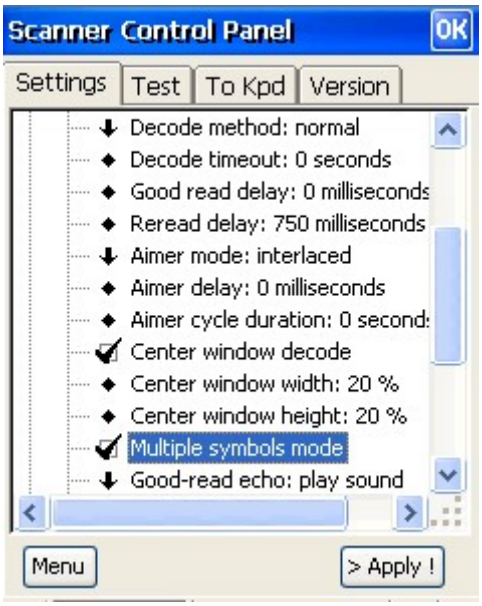
9. Check "**Center window decode**". Scan a symbol that intersects a rectangle specified by the center window. The symbol should be returned.



10. Double tap "**Center window width**" and "**Center window height**". Drag to define the percentage of width and height of the center decode rectangle, relative to the entire image.

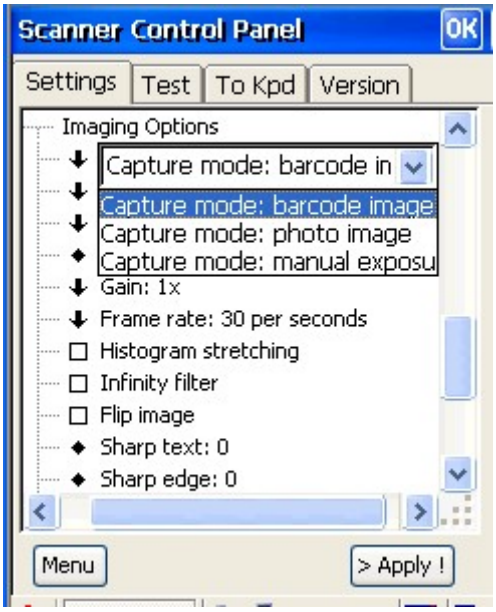


11. To turn on the multiple symbol, check "**Multiple symbol mode**". Press the trigger key to scan the barcode. The imager will not stop until the trigger is released or a "No Decode" timeout occurs. The same bar code will not read again until current decoding stops.

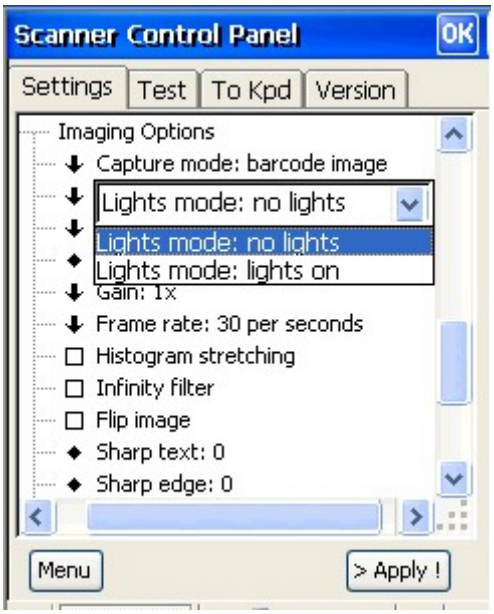


15.4 Imaging Options

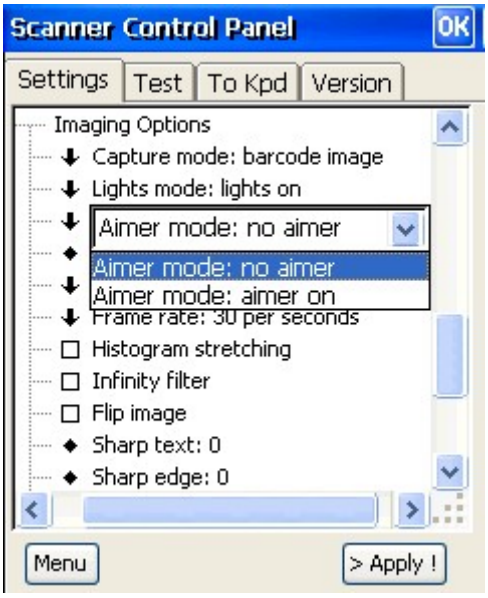
1. Double tap "**Capture mode**". A pull down menu show "**barcode image**", "**photo image**" and "**manual exposure**". Select "**barcode image**" results in a darker image with less noise. Select "**photo image**" results in a brighter image with longer capture times. This selection also allows you to specify how the lights and aimers behave during capture. Selecting "**manual exposure**" allows you to specify how the lights and aimers behave during capture. You can also specify the capture exposure time, gain factor, and frame rate.



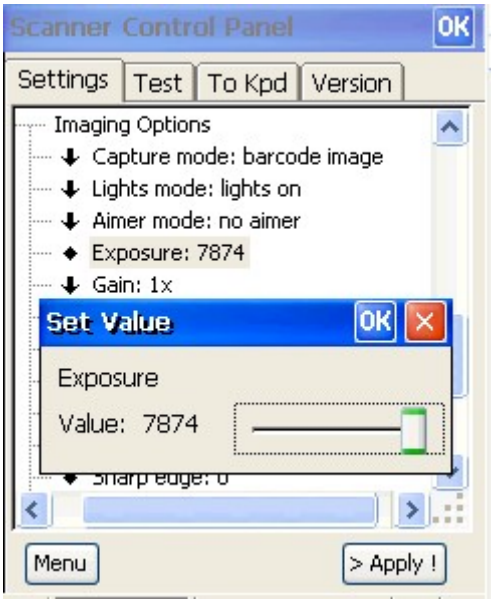
2. Double tap "**Light mode**". Select either "**no lights**" or "**lights on**". Select "**lights on**" if you want to use the illumination LEDs during capturing the image.



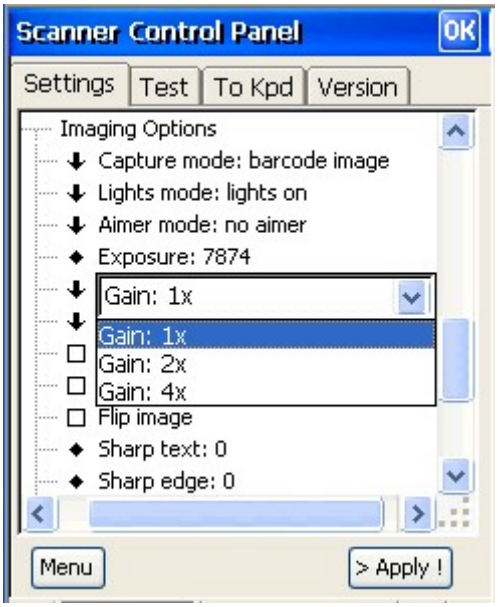
3. Double tap "**Aimer mode**". Select "**Aimer on** " or "**No aimer**".



4.Double tap "**Exposure**". Drag to define the exposure time.

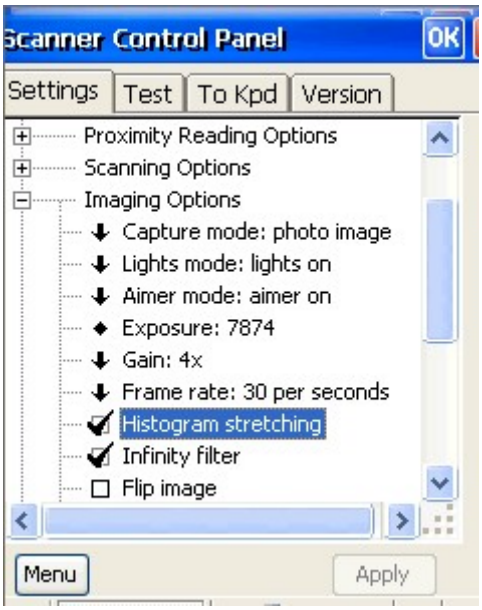


5. Double tap "**Gain**". Select "**1X**", "**2X**" or "**4X**". "**1X**" = No gain. "**2X**" = medium gain. "**4X**" = Heavy gain.

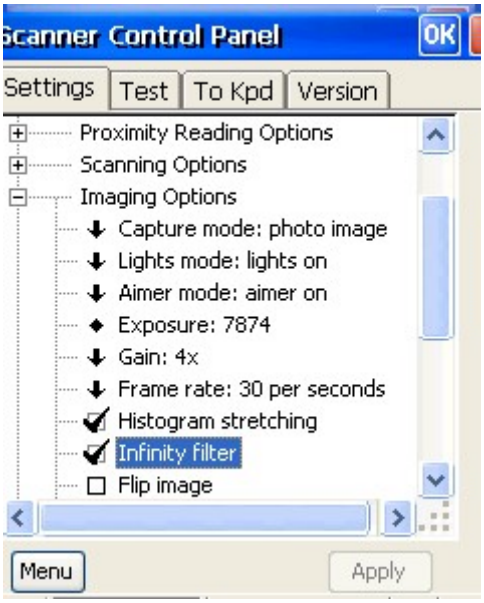


6. Double tap "**Frame rate**" to select the number of frames per second. The default is 30.

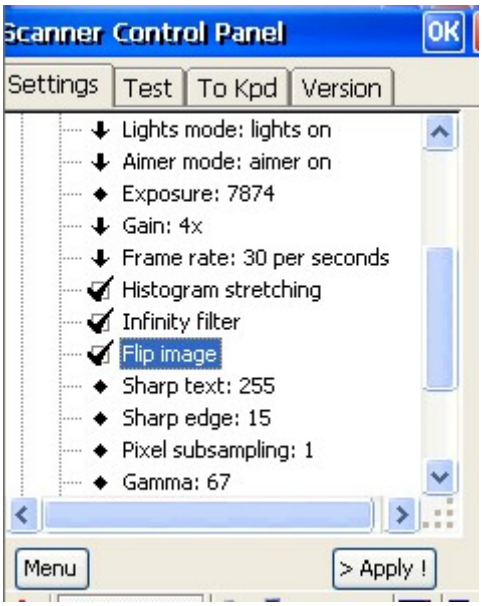
7. Check "**Histogram Stretching**" to enhance the image contrast.



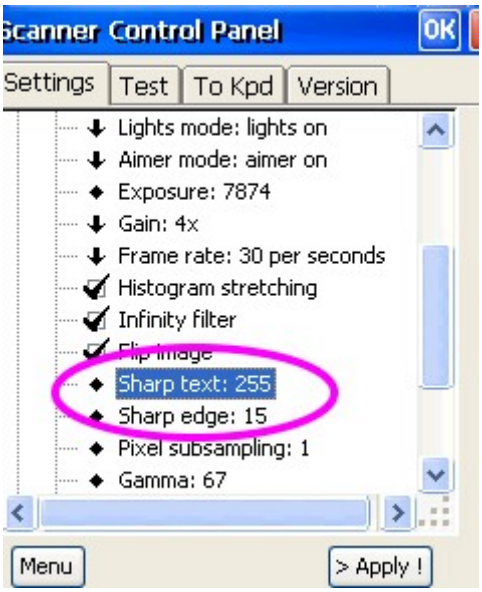
8. If you want to take picture of an item from a very long distance, check "**infinity filter**".



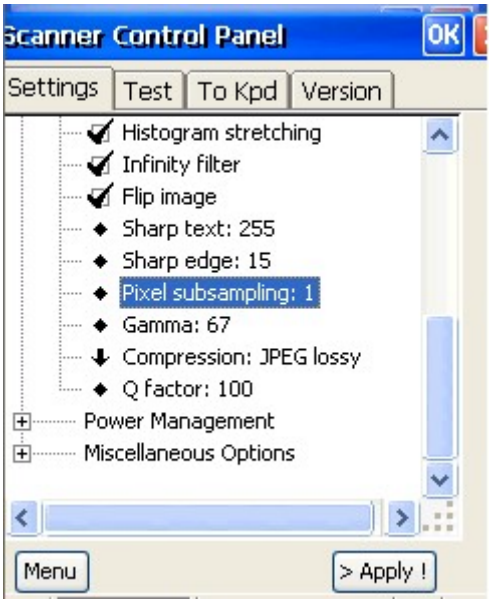
9. If you check "**Flip image**", when you take the picture, the image will be flip 180% upside down.



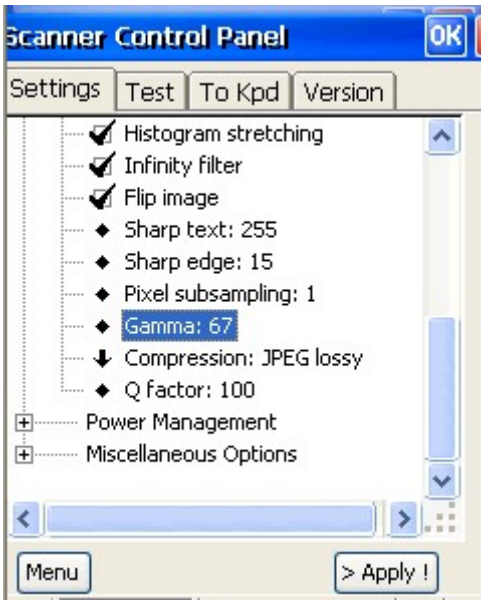
10. Double tap "**Sharp text**" and "**Sharp edge**". Define the sharpen value. They will sharpen the edges and smoothes the area between the edges of the transmitted text image.



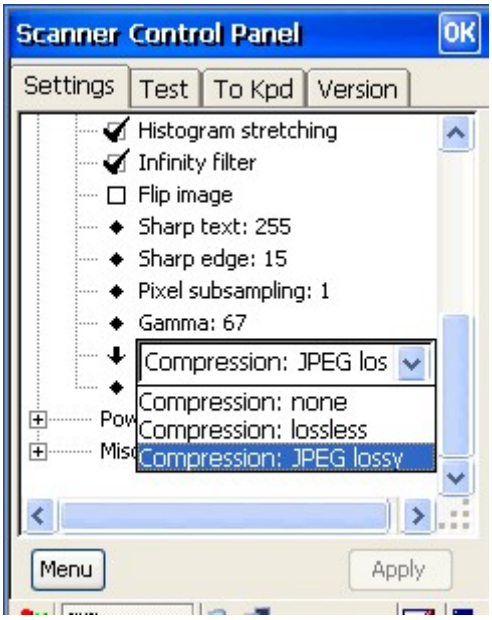
8. Double tap "**Pixel subsampling**" to define image data within the image window to be subsampled. Default : 1 , means no subsampling.



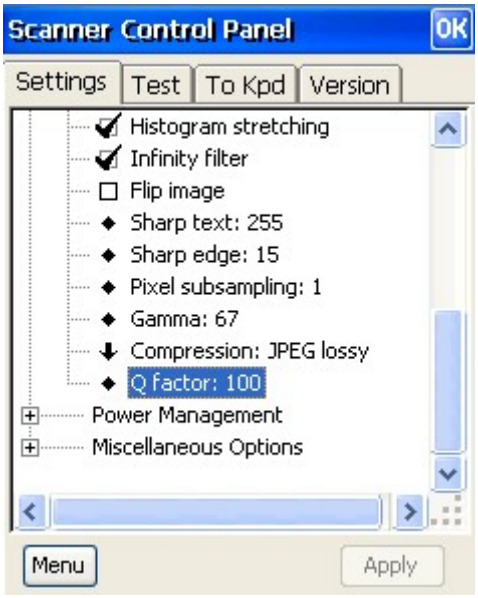
12. Double tap "**Gamma**" to define the gamma value. Gamma measures the brightness of midtone values produced by the image. You can brighten or darken an image using gamma correction. A higher gamma correction yields an overall brighter image. The lower the setting, the darker the image.



13. Double tap "**Compression**". Select "**None**", "**lossless**" or "**JPEG lossy**". An image can be transferred three ways: uncompressed (None), losslessly compressed (Adaptive Huffman Encoding), or JPEG lossy compressed.

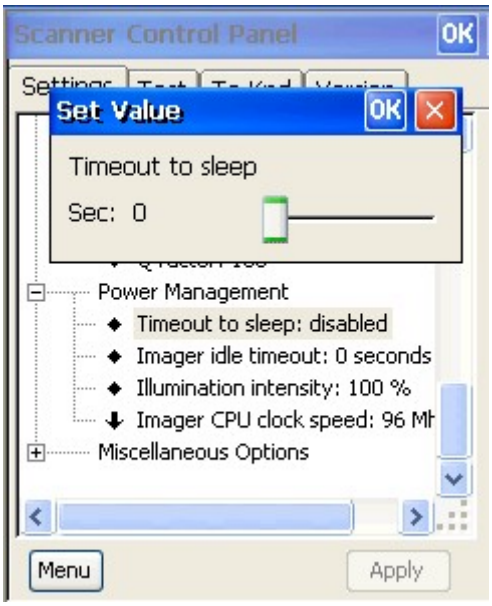


14. Double tap "**Q Factor**" and drag to define the Q factor. The higher the Q factor, the better the image quality.

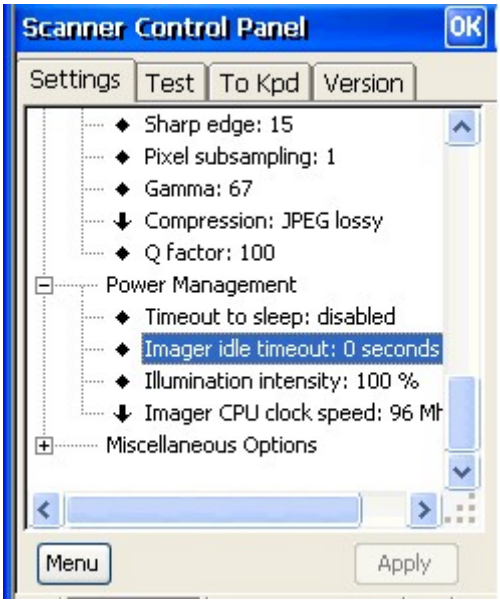


15.5 Power Management

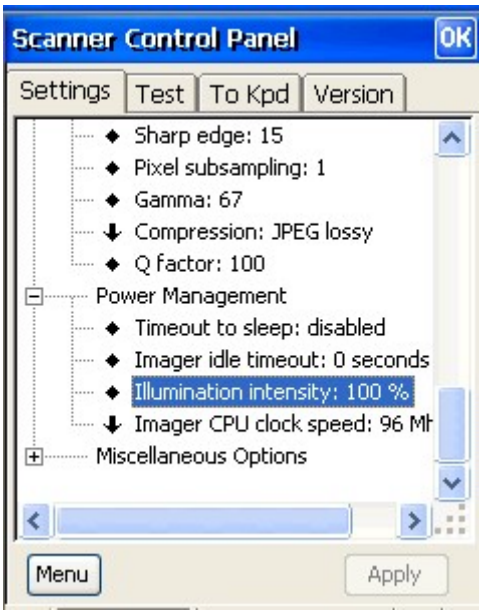
1. Double tap "**Timeout to sleep**", define the timeout for entering the sleep mode. The Timeout selection sets the period of time the engine waits to return to idle mode after a decode or image capture.



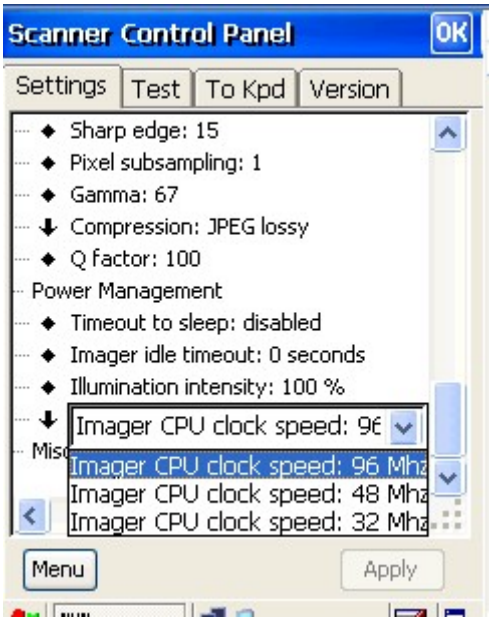
2. Double tap "**Imager idle timeout**". Define the time the engine must be idled before timing out.



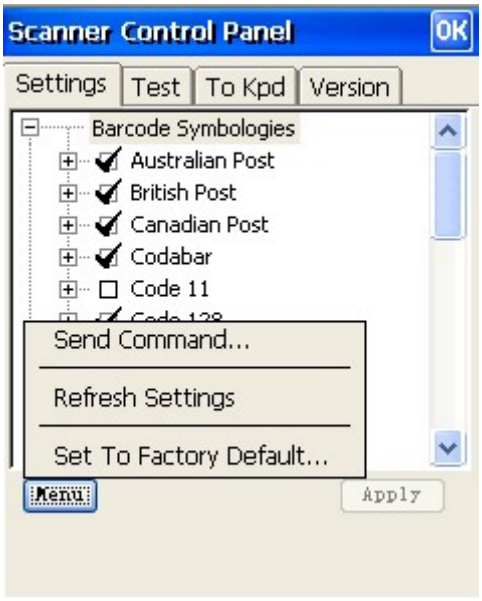
3. Double tap "**Illumination intensity**". You can save more power by reducing the illumination intensity.



4. Double tap "**Imager CPU clock speed**". This indicate the speed of the engine system clock. By slowing down the processing speed, the power will be saved.

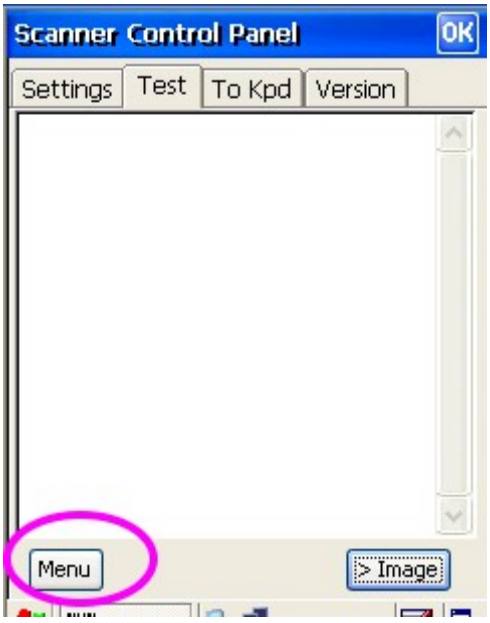


5.Tap "**Menu**". You can send command, refresh settings or set to factory default.

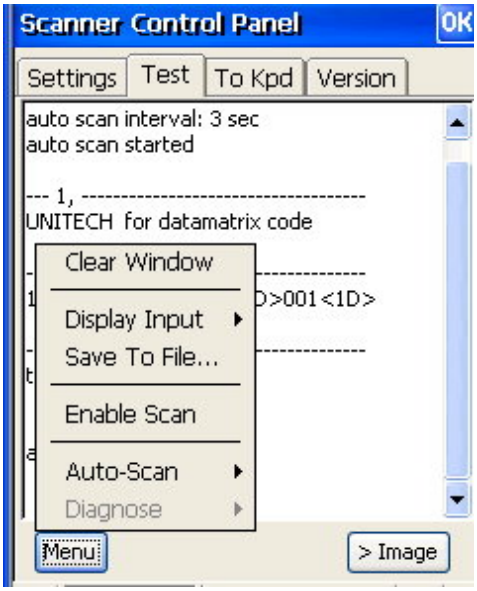


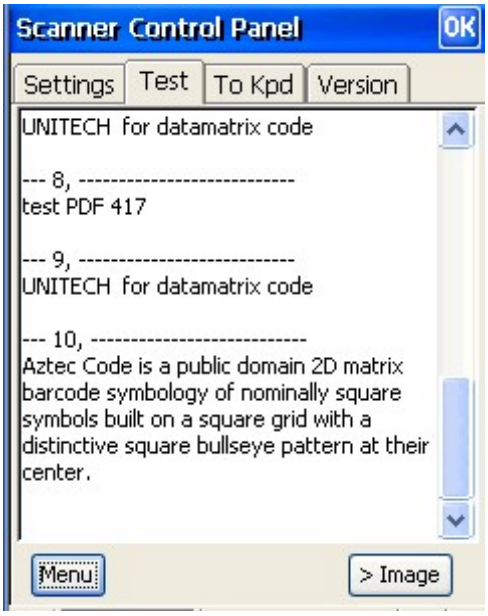
15.6 Text and Image

1. Under **Test** tab, select **Menu**



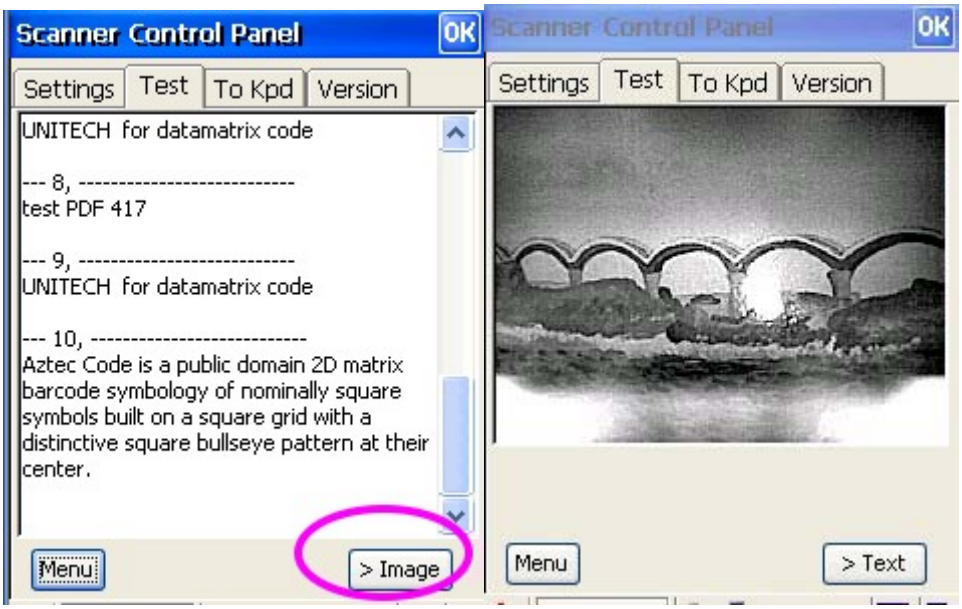
2.Select "**Auto-Scan -> Start AutoScan"**. Define interval. Scan 2D barcode.



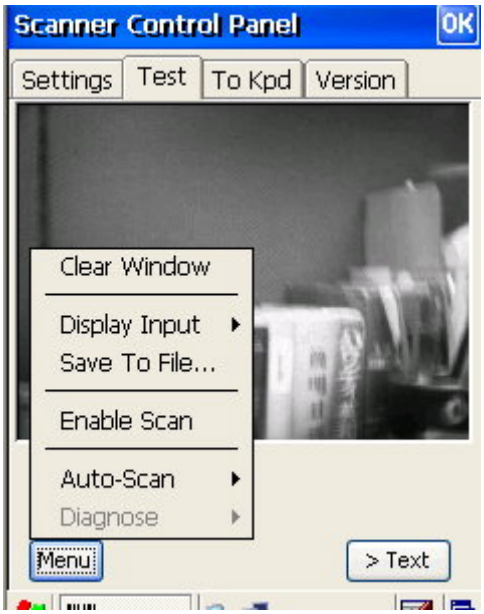


3. Select "**Auto-Scan -> Stop Auto-Scan**" after finished scanning.

4. Tap **>Image** to turn to image mode. The engine is ready to capture image. Press the trigger key to capture any image. The image will be shown.



5. Tap **Menu** . Select "**Save to file**". Save the file as JPG.



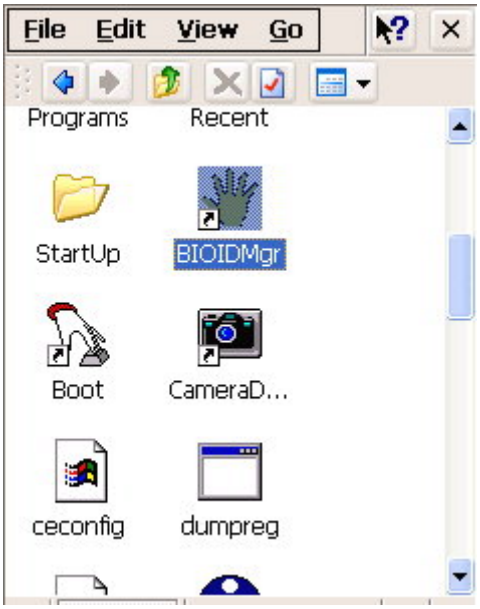
6. Tap **>Text** to turn into the scan mode. You can scan any 2D barcode label.

Chapter 16 BIOIDMgr

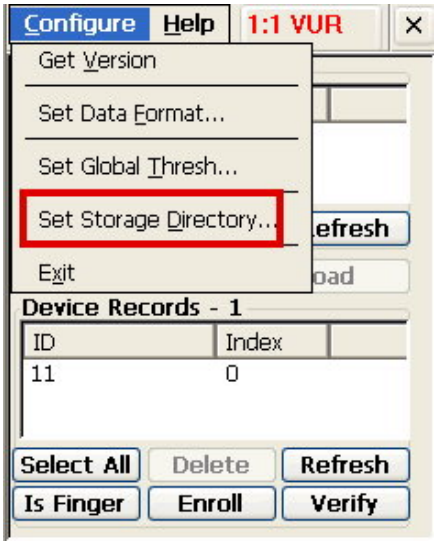
BioIDMgr is a utility to read/verify finger print of the users as an input and keep all users' finger print in a profile.(For MR650 only)

Path: /My Device/Windows/BIOIDMgr.exe

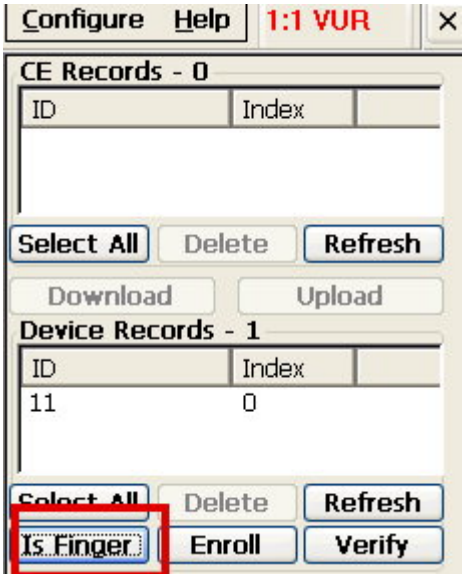
1. Select **My Device->Windows->BIOIDMgr.exe**

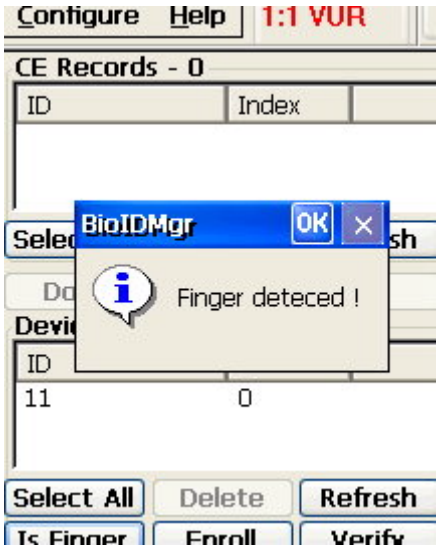


2. BIOIDMgr is executed. Under "**Configure**", select "**Set Storage Directory**". Define where you want to save the ID and finger print record.



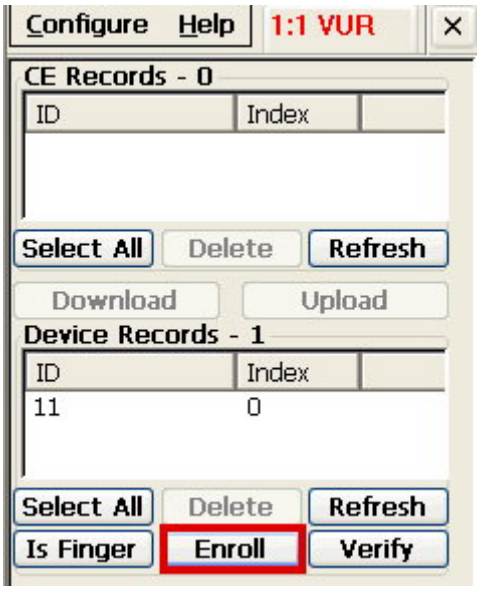
3. Tap **Is Finger** Place your finger on the finger print sensor. Message show "**Finger detected**".

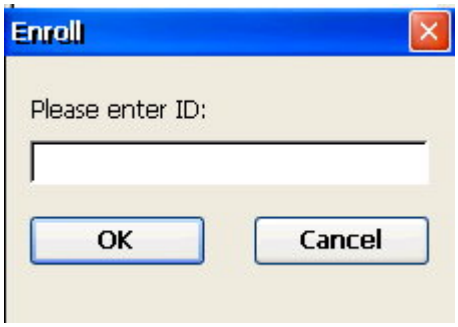




4. Tap **Enroll** button. Enter an ID number(ex: employee ID), tap **OK**

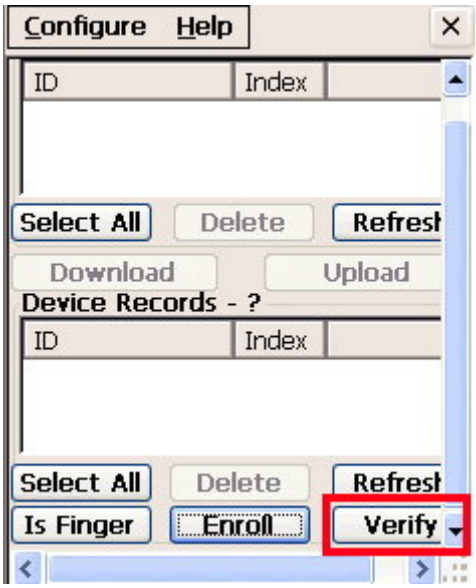
5. Place finger on sensor message pop out. Place your finger on the sensor. Your finger print stamp and ID will be built into the system and saved in the database.



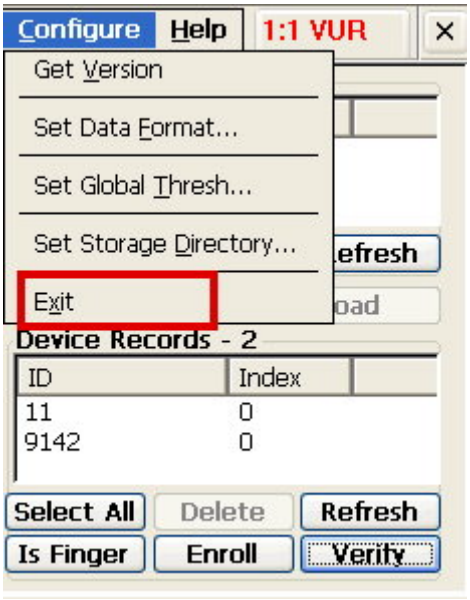


6. Tap **Verify** button. Enter ID number, tap **OK**

7. Place your finger on the sensor. The sensor will verify the finger print according to the ID number. Message "**Pass**" or "**Fail**" will be displayed.



8. To close this utility, under "**Configure**", tap "**Exit**".

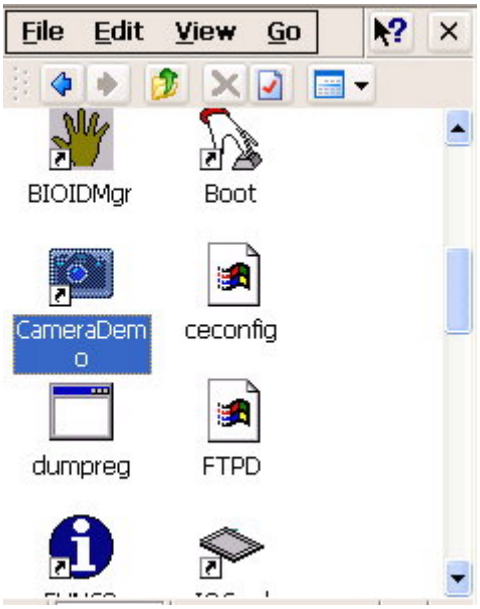


Chapter 17 CameraDemo

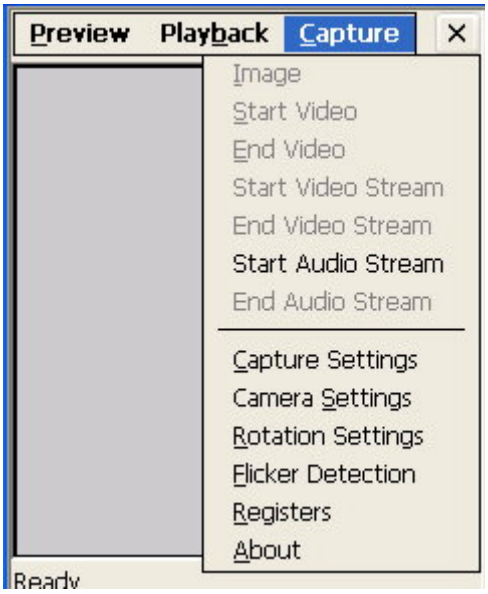
This utility allows image capture and video streaming. (For MR650 only)

Path: /My Device/Windows/CameraDemo.exe

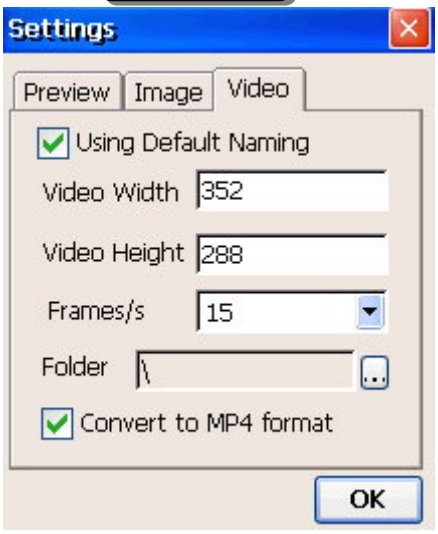
1. Double tap "**CameraDemo**".



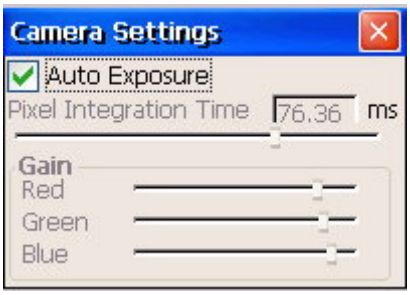
2. Under "**Capture**", select "**Capture Settings**".



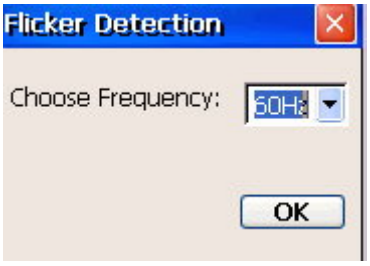
3. Under **Video** tab, define image and video dimension and storage folder, then tap **OK**



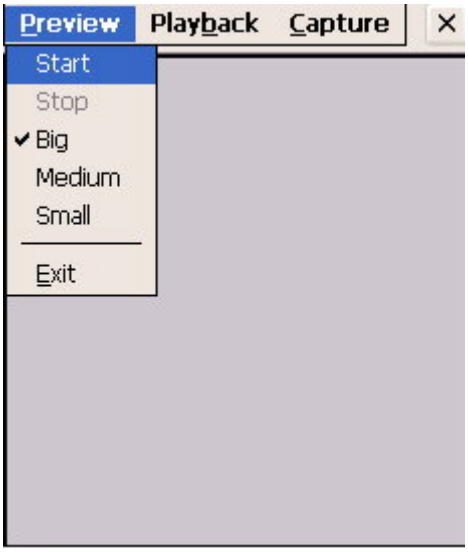
4. Under "**Capture**", select "**Camera Settings**". Define the pixel integration time.

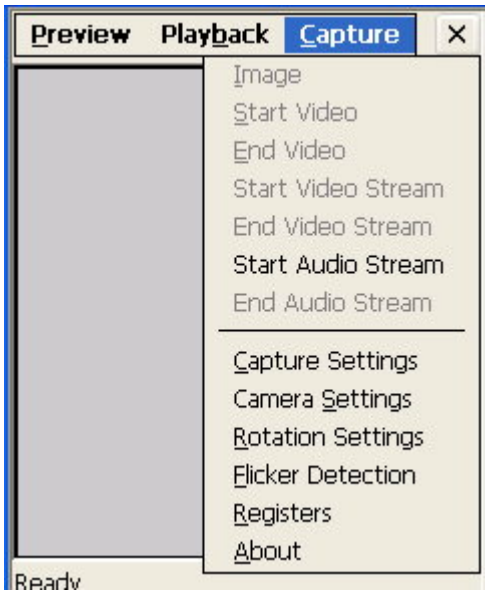


5. Under "**Capture**", select "**Flicker Detection**". Select the frequency.

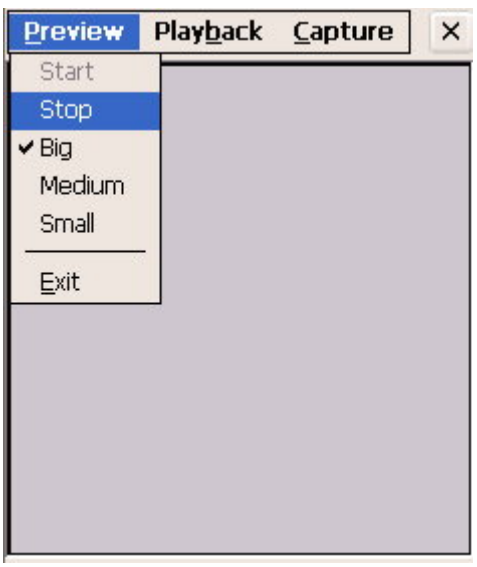


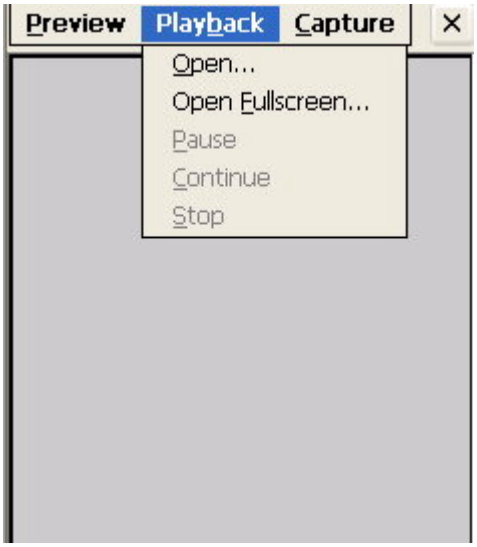
6. Under "**Preview**", select "**Start**". Your image will be focused. Under "**Capture**", select "**image**".





7. Under "**Preview**", select "**Stop**". Under "**Playback**", select "**Open**". Select the image file that was captured.





8. Tap "**Preview/Exit"** to close.

Chapter 18 Window CE Remote Management

This utility allows the data and files shared over the LAN network.(For MR650 only)

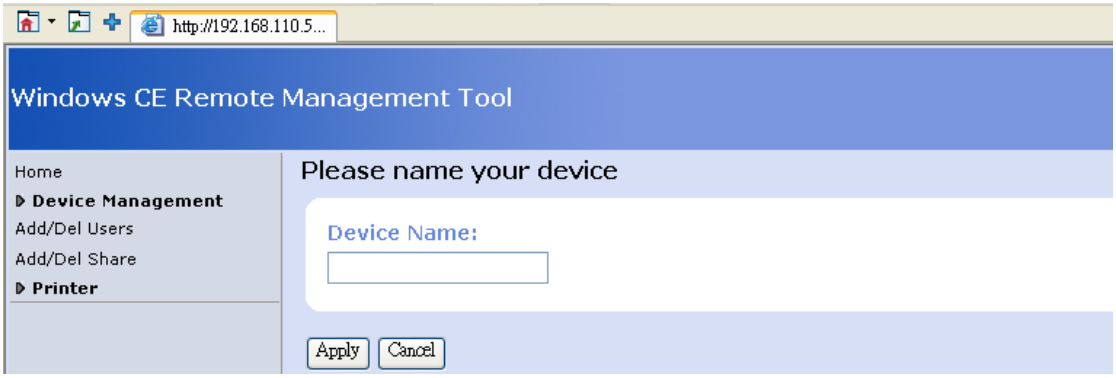
1. Connect LAN cable to MR650.

2. Check IP address of MR650.

3. Input IP address of MR650 in the browser's URL of your PC or Notebook.

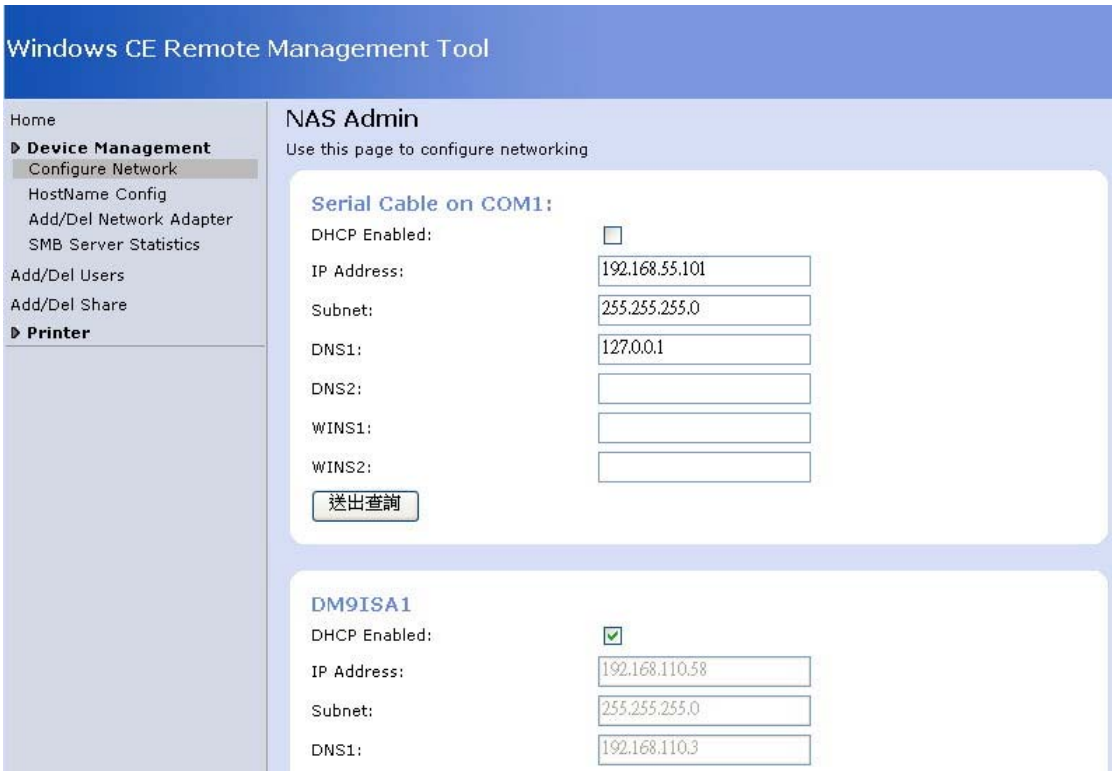
4. Enter "**admin**" as default password and verify the password again.

5. Please input Device Name you want and press **Apply**



6. The Windows CE Remote Management Tool interface.

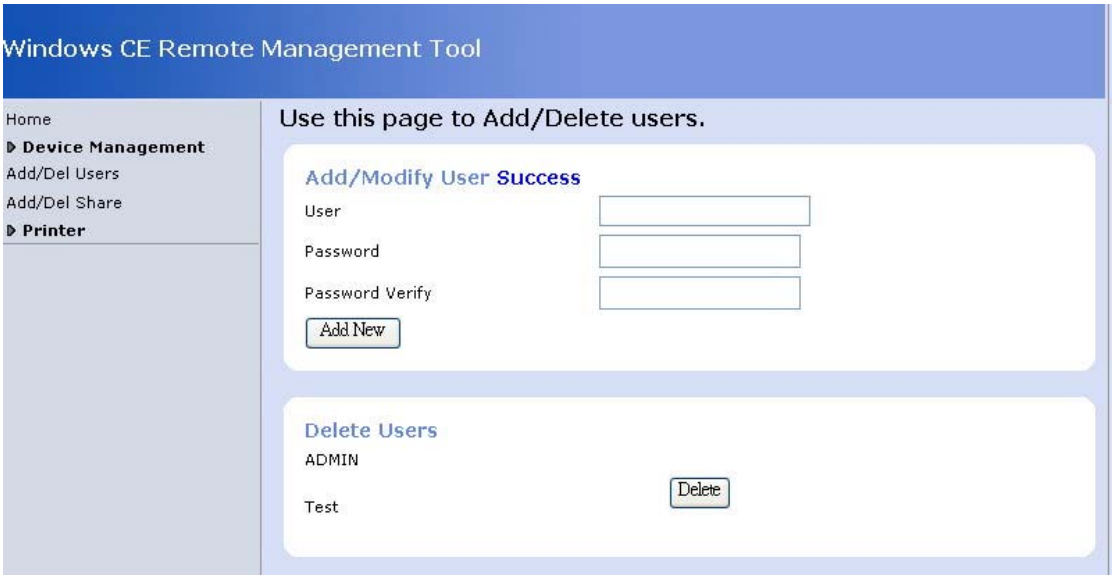
Device Management – Configure Network



7. Click "**Add/Del Users**" to Add/Delete users.

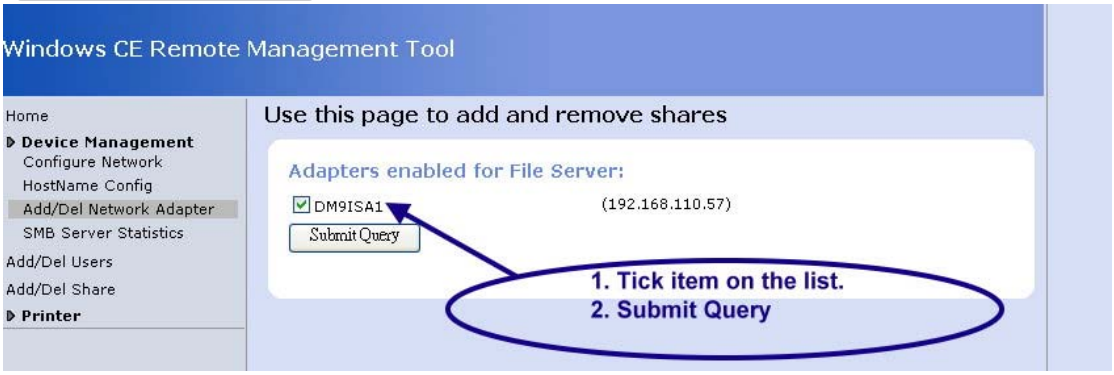
You can add or delete any user, except Admin. After enter **Apply** ,

you can see your new user under "**Delete Users**"

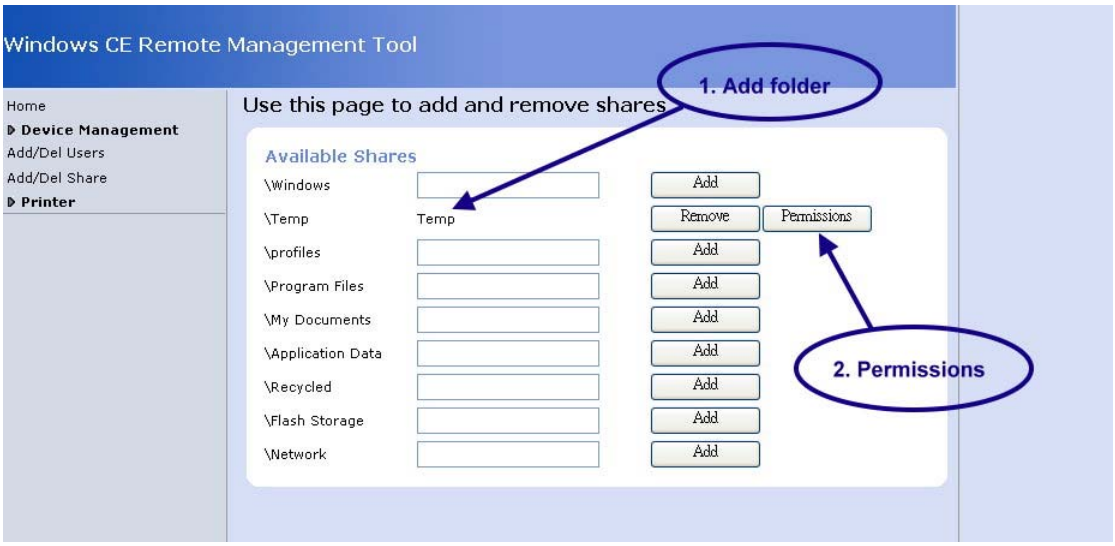


8. Click“**Add/Del Network Adapter**”. Select the adapter and click

Submit Query



9. Click “**Add/Del Share**”, define a name for the folder of terminal that you want to share.

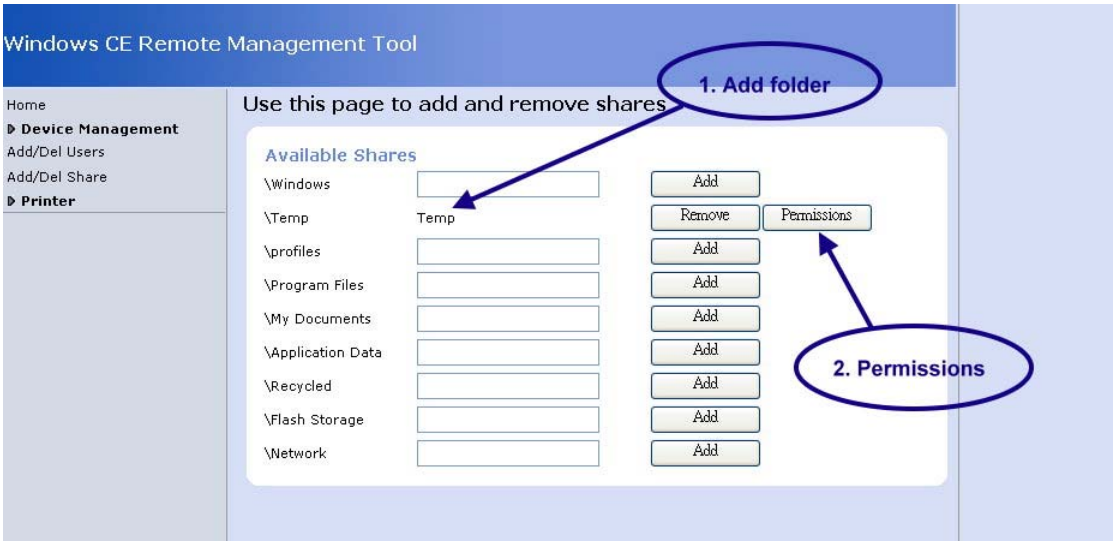


10.Click **Permissions** . Select “**Allow**” or “**Deny**” for the user’s access right.

Click **Update** . Click **Done**

11. On the browser's URL, enter \\<**Device Name**>\<**folder name**>**.** All the data of the shared folder of the device are shown and they are ready to be shared.

12. To remove any shared folder, click **Remove**



Chapter 19 Multibay

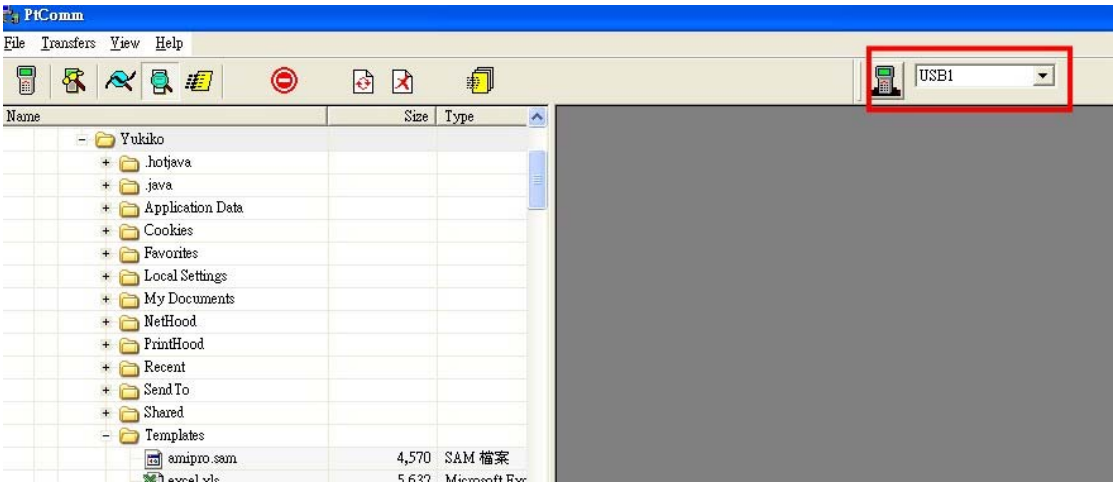
Multibay is a tool allows up to 4 terminals to use the multidock cradle for data transferring and charging.(For PA962 series)

Path: /Control Panel/Multibay settings

* Install PTCOMM4 on your host.
* Disable MS Activesync.

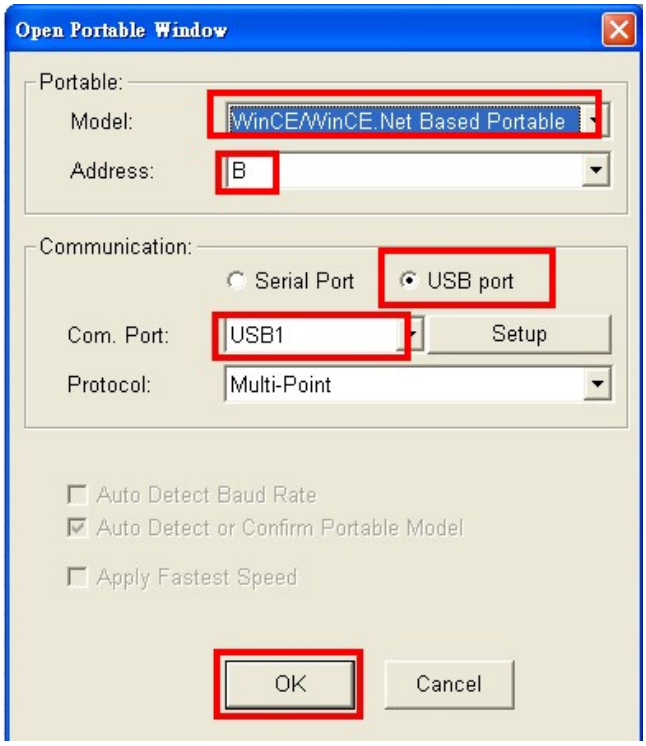
1. Connect the terminal to the host via RS232 cable or USB cable.
2. Tap "**Multibay settings**" on the terminal.
3. Specify the address of the terminal and size of packet. Tap **Apply**
   Tap **OK**

4. Run PTCOMM4 on your host. You should see USB"**0**", USB"**1**" etc(Depends on the address of the terminal) appear on the list.

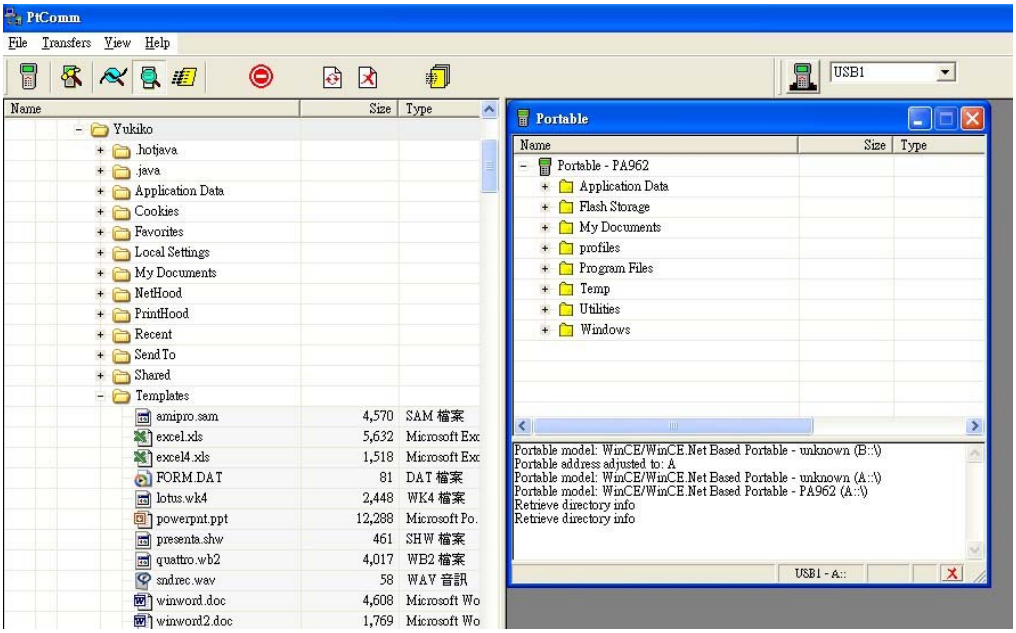


5. Select "**Transfer/Connect Portable**".

6. Select the model, address (Must be the same as the address you selected in Multibay settings), communication port(USB or RS232), com port (same as step 4). Tap **OK**



7. The directories of the terminal will be shown on the right pane of PTCOMM4. It is ready for the file transfer.



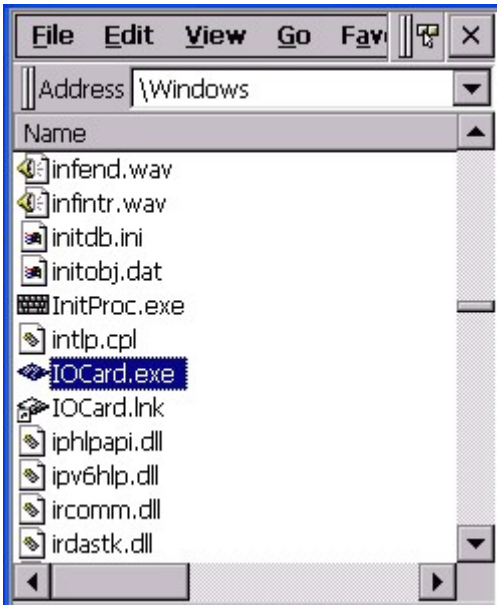
8. To close multibay, tap the icon on the taskbar (On the terminal) and select "**Exit**".

Chapter 20 I/O Card Control

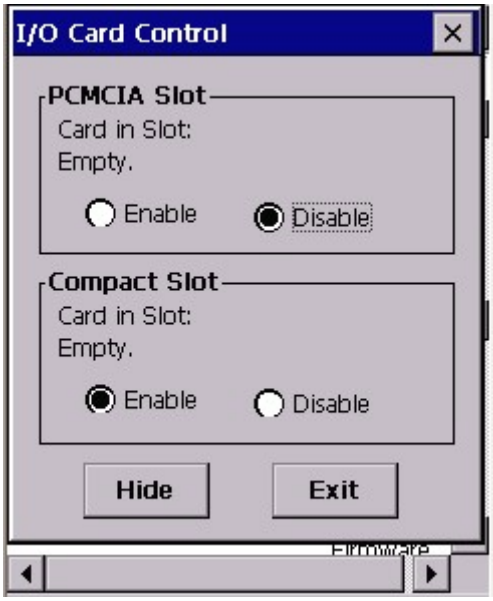
This tool allows you enable or disable PCMCIA slot and compact slot whenever it is necessary. Once you disable the slot, the card in that slot will not work until you enable the slot again. (For PA96X, PA982, HT660, MR650 series)

Path: My computer/Windows /IOCard.exe

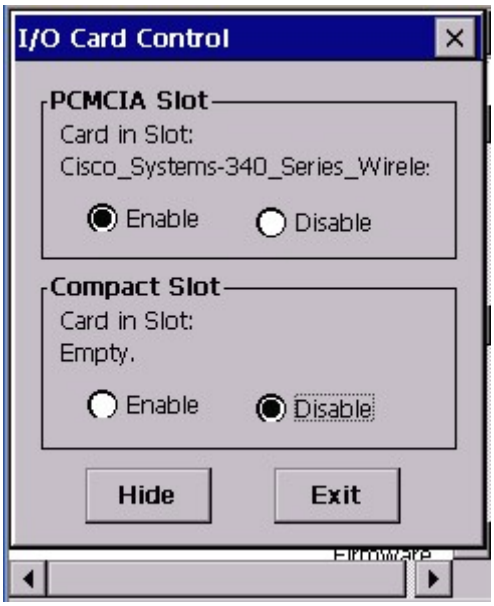
1. Double tap "**IOCard**".



2. Tap "**Disable**" under PCMCIA slot. The PCMCIA interface will not work.



3.Tap "**Disable**" under compact slot. The compact interface will not work.



4. Tap **Hide** to hide the I/O Card Control window.

5. Tap **Exit** to exit the I/O card control.

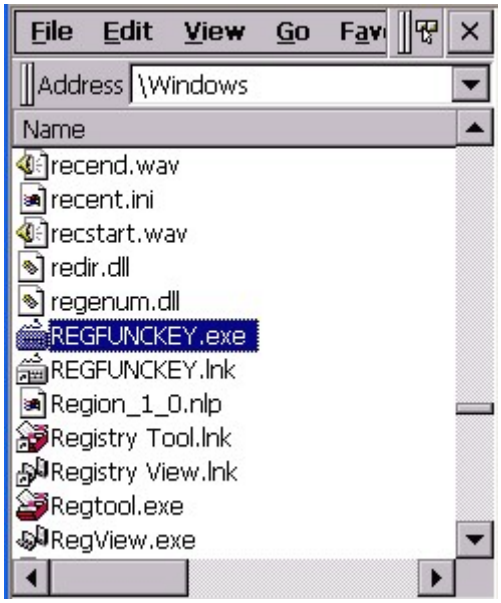
Chapter 21 RegFuncKey

This tool allows you to re-define the function keys. (For terminals that do not have Unitech Settings)

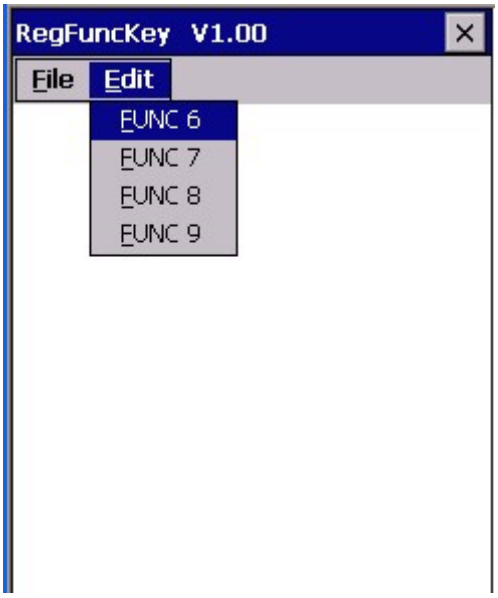
For default value:

Func 6 = Task Manager
Func 7 = Scanner Setting
Func 8 = Power Management
Func 9 = Device Info

1. Double tap "**REGFUNCKEY**".

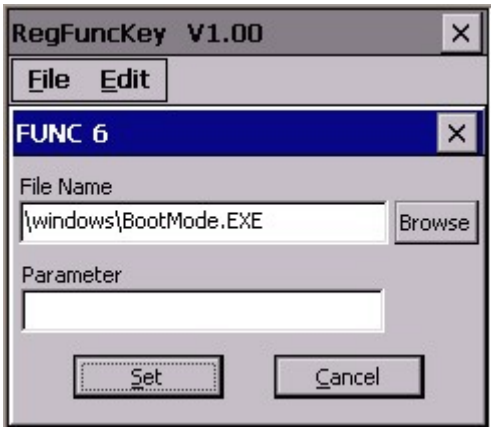


2. Under "**Edit**", select "**FUNC 6**".

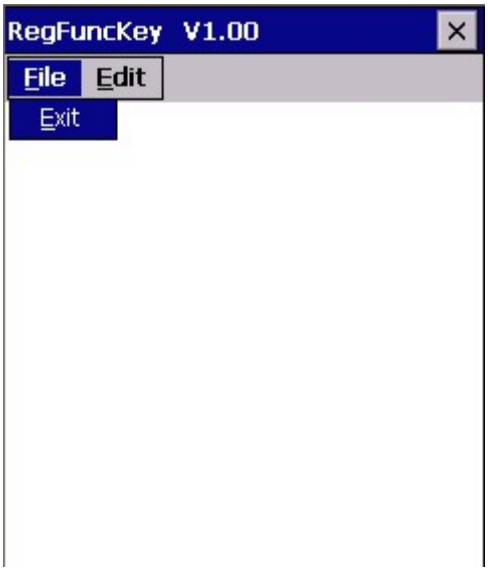


3.Tap **Browse** .Select the application you want to be executed by Func 6.

4. Tap **Set**



5. Under "**File**", tap "**Exit**".



6. Press “Func” + “6” key on the keypad. You should see the “Bootmode” windows pop up.

7. You may repeat the above steps to re-define the Func 7, 8 and 9.

Chapter 22 Registry Backup

This tool allows you to save the current registry or reset to factory default. (For terminals that do not have Unitech Settings)

Path: /My Computer/Windows/RegBackup.exe

1. Double tap "**RegBackup**".

2. Tap **Save** to save current registry settings.

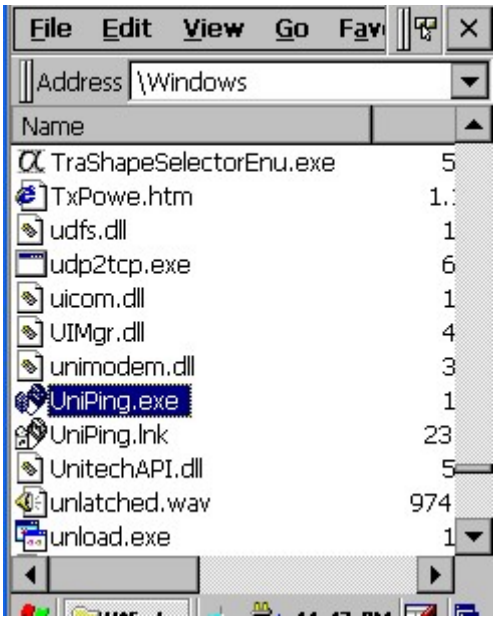
3. Or tap **Restore** to reset registry to factory default. Terminal will be warm started. (Note that "Restore" button is grey out if the registry setting was not saved before)

Chapter 23 UniPing

UniPing allows the users to trace terminal's own IP address and ping to other computer on the LAN. (For terminals that do not have Unitech Settings)

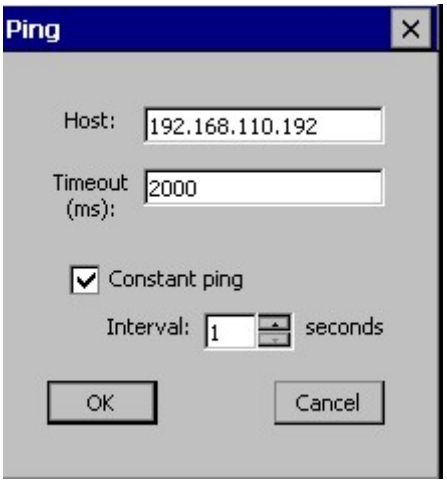
Note: Make sure your terminal is currently connecting to the LAN.

1. Double tap "**UniPing.exe**".



2. Under "**Tools**", select "**Ping**".

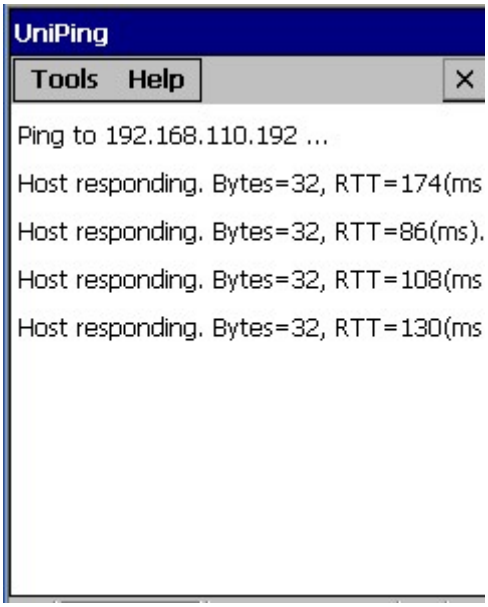
3. Under "**Host**" field, enter the IP address of destination computer you want to ping to.For **Timeout**, you can leave it as 2000ms or re-enter the timeout.
Check "**Constant Ping**" and set the interval time, so that the terminal ping to the remote computer constantly for every interval time set. Tap **OK**



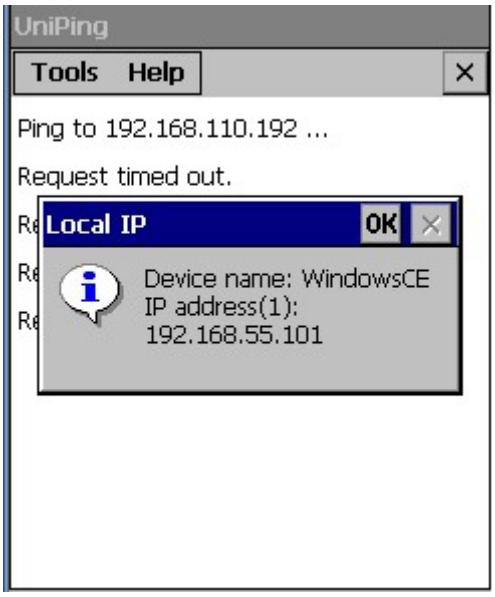
4.The terminal will search for the remote computer with the IP address which you entered. If not found, you will see message as below:

5.Select "**Tools->Stop Ping**" to stop ping to the remote computer.

6. If the remote computer is found, you will see the below:



7. Select "**Tools->Local IP**". The IP address of the terminal is shown.

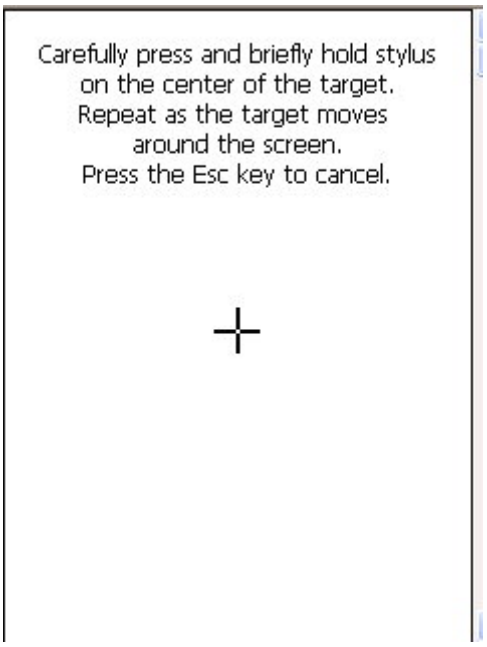


Chapter 24 Available Function Keys

1. **Func + Esc (Calibration)**
2. **Func + 6 (Task Manager)**
3. **Func + 7 (Scanner Setting)**
4. **Func + 8 (Power Management)**
5. **Func + 9 (Device Information)**

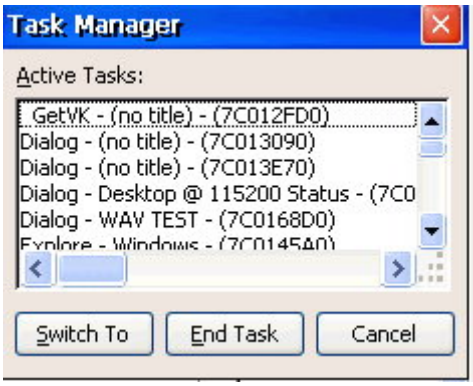
24.1 Func + Esc (For all CE5 Terminals, except MR650)

Press Func key and Esc key. Calibration is ready to be executed. Calibrate the screen by stylus.



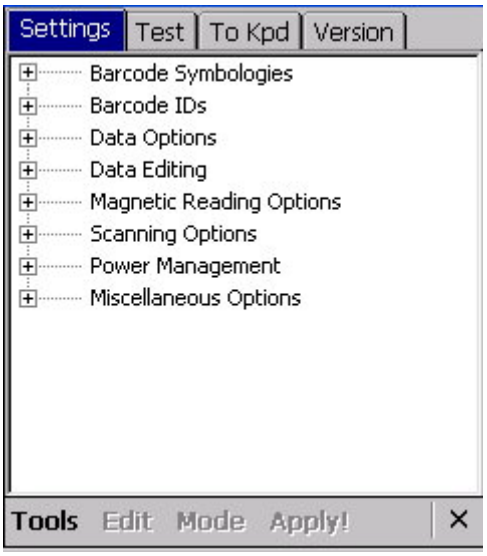
24.2 Func + 6 (For all CE5 Terminals, except MR650)

Pressing Func key and numeric key “6” will execute the **Task Manager**.



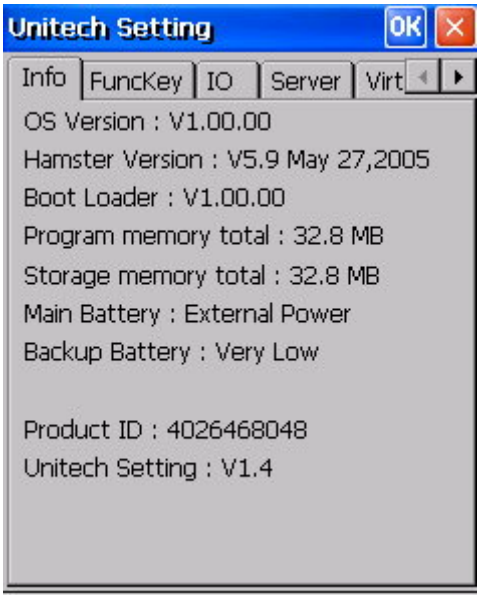
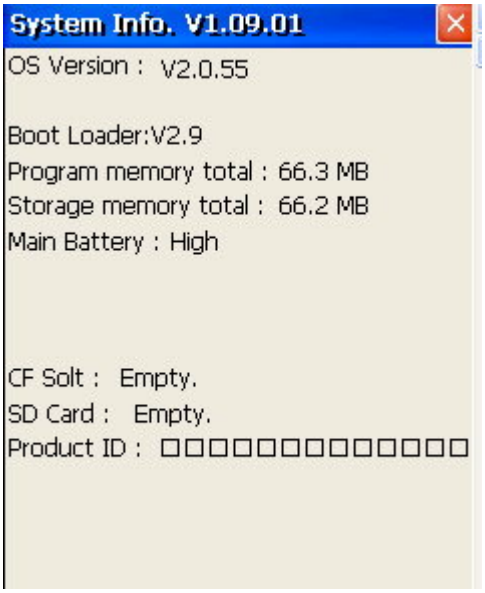
24.3 Func + 7(For all CE5 Terminals, except MR650)

Pressing Func key + numeric key “7” will execute **scanner settings**.



24.4 Func + 8(For all CE5 Terminals, except MR650)

Pressing Func key and numeric key “8” will execute **power management**.

24.5 Func + 9(For all CE5 Terminals, except MR650)

Pressing Func key and numeric key “9” will show the **device information**.